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ABSTRACT

Based upon an occupational rating instrument entitled the Occupational Analysis Inventory (OAI), this study sought to produce a more stable and interpretable set of OAI job analysis factors. The study was designed (1) to obtain OAI ratings on an additional 600 jobs and thus enlarge the sample to 1,414 jobs and (2) to derive a meaningful set of work dimensions through factor analysis of the OAI ratings of the 1,414 jobs and estimate the stability of these derived dimensions. (The OAI is an instrument containing 622 work elements which are descriptions of work activities and conditions on which jobs and occupations are related. The work elements were generated within a work context paradigm of information input, mental activities, job behavior, and job outcomes.) OAI ratings were performed on written job descriptions of a 1,414 representative job sample. Eight separate sections of OAI elements were factor analyzed, and the resultant first-order factors were, in turn, subjected to an overall (higher-order) factor analysis. These analyses produced 132 first-order and 28 general higher-order work dimensions which are readily interpretable and meaningful. Analyses of factorial stability derived from two subsamples of 707 jobs each indicated some degree of stability in the derived work dimensions. It was concluded that the OAI dimensions should be broadly representative of the kinds of activities and conditions existent in the world of work. (Author/EM)

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SYSTEMATICALLY DERIVED DIMENSIONS OF HUMAN WORK

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Program Director: J. W. Cunningham

CENTER FOR OCCUPATIONAL EDUCATION

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ABSTRACT

Human work dimensions were derived through factor analyses of 602 work elements in the Occupation Analysis Inventory (OAI). The OAI elements describe various kinds of work activities and conditions on which jobs and occupations are rated. The data consisted of the OAI ratings of 1414 jobs representing the percentages of workers employed in five major occupational categories. Eight separate factor analyses were performed on groups of work elements contained in the following sections of the OAI: (a) information received, (b) mental activities, (c) physical work behavior, (d) general physical requirements, (e) representational work behavior, (f) interpersonal work behavior, (g) work goals, and (h) work context. Those analyses produced 132 first-order work dimensions which, in turn, were subjected to an overall factor analysis yielding 28 general (higher-order) dimensions. The resultant dimensions were readily interpretable and meaningful; the investigators were unable to name only five first-order and four higher-order dimensions. Analyses of factorial stability were performed involving the computation of congruence coefficients between factors derived from two separate subsamples of 707 jobs each; the results compared favorably with findings in previous factor analytic studies involving the same and similar variables. (The congruence coefficients were generally higher for orthogonally rotated factors than for oblique factors obtained through the maxplane rotation procedure.) Since the OAI elements cover a wide variety of work activities and conditions and the job sample in this study was reasonably representative of the job population,

the OAI dimensions should be broadly representative of the kinds of activities and conditions existent in the world of work. Applications of the OAI dimensions might be found in such areas as occupational taxonomy development, vocational/technical education program analysis, and occupationally related test development. The dimensions have already served as bases for occupational clustering and interest-scale development.

TABLE OF CONTENTS

Page

INTRODUCTION AND PURPOSE 1

PROCEDURES 5

- The Job Sample 5
- Sectional Factor Analyses 7
- Higher-Order Factor Analyses 9

RESULTS 10

- Results of the Sectional Factor Analyses 10
  - Coefficients of Congruence Between the Two Subsamples . . . 10
  - Factors Derived from Eight Sectional Analyses of the Total Sample 12
- Results of the Higher-Order Factor Analyses 62

DISCUSSION 76

REFERENCES 85

APPENDICES 88

- Appendix A. Procedures for Drawing Three Job Samples Comprising the Total Sample of 1414 Jobs 89
- Appendix B. List of Jobs Comprising the Total Sample of 1414 . 101
- Appendix C. Inter-Rater Reliability Analyses of the OAI Work Elements (Items) 147
- Appendix D. Jobs in the Two Subsamples Used in Estimating Factor Stability 196
- Appendix E. Means and Standard Deviations for 602 OAI Items (Work Elements) Based on the OAI Ratings of 1414 Jobs 203
- Appendix F. Eigenvalues, Cumulative Proportions of Variance, and Communalities from Eight Sectional Factor Analyses of OAI Work Elements (Items) Based on the OAI Ratings of 1414 Jobs 221
- Appendix G. Factor Loadings from Orthogonal Rotation in Eight Sectional Factor Analyses of OAI Work Elements (Items) Based on the OAI Ratings of 1414 Jobs . . 238
- Appendix H. Factor Loadings from Oblique Rotation in Eight Sectional Factor Analyses of OAI Work Elements (Items) Based on the OAI Ratings of 1414 Jobs . . 266
- Appendix I. Coefficients of Congruence Between the Orthogonally Rotated Factors from Eight Sectional Factor Analyses Applied Separately to Two Subsamples of Jobs 287

Page

Appendix J. Coefficients of Congruence Between the Obliquely Rotated Factors from Eight Sectional Factor Analyses Applied Separately to Two Subsamples of Jobs 298
Appendix K. Data from the Higher-Order Factor Analysis of 132 First-Order OAI Factors 308
Appendix L. Coefficients of Congruence for 28 Orthogonally Rotated Higher-Order OAI Factors 341

LIST OF TABLES

Table Page

Text

1. Subdivisions of the Occupation Analysis Inventory (OAI) . . 2

2. Numbers and Percentages of Jobs Drawn from Five Related Occupational Categories of the *Dictionary of Occupational Titles* and the U. S. Census (N = 1414) 6

3. Distributions of the Highest Coefficient of Congruence for 132 Orthogonally Rotated Factors from Eight Sectional Analyses of the Occupation Analysis Inventory 11

4. Distributions of the Highest Coefficient of Congruence for 132 Obliquely Rotated Factors from Eight Sectional Analyses of the Occupation Analysis Inventory 12

5. Salient Loadings of OAI Work Elements on 20 Information Received Factors 14

6. Salient Loadings of OAI Work Elements on 10 Mental Activity Factors 22

7. Salient Loadings of OAI Work Elements on 30 Physical Work Behavior Factors 27

8. Salient Loadings of OAI Work Elements on 9 General Physical Requirements Factors 37

9. Salient Loadings of OAI Work Elements on 12 Representational Work Behavior Factors 40

10. Salient Loadings of OAI Work Elements on 11 Interpersonal Work Behavior Factors 44

11. Salient Loadings of OAI Work Elements on 26 Work Goals Factors 47

12. Salient Loadings of OAI Work Elements on 14 Work Context Factors 57

13. Coefficients of Congruence for the 28 Rotated Higher-Order Factors 62

14. Salient Loadings of OAI First-Order Factors on 28 Higher-Order Factors 64

Table Page

15. Titles of 132 First-Order Work Dimensions Derived from Factor Analyses of Eight Separate Sections of OAI Elements 77

16. Titles of 28 Higher-Order Work Dimensions Obtained from a Factor Analysis of 132 First-Order OAI Dimensions 81

Appendix

17. Identification Numbers of 215 Jobs for Which Two Sets of OAI Ratings Were Obtained 150

18. Conversion of Variable Identification Numbers in the Reliability Analyses to the Appropriate OAI Work Element (Item) Numbers 152

19. Frequency and Proportion Distributions for Two Estimates of OAI Item Inter-Rater Reliability 157

20. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 215 Jobs by Two Sets of Analysts . 158

21. Identification Numbers of 88 Jobs for Which Three Sets of OAI Ratings Were Obtained 169

22. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 88 Jobs by Three Sets of Analysts . 170

23. Identification Numbers of Jobs in Subsample A 197

24. Identification Numbers of Jobs in Subsample B 200

25. Conversion of the Variable Numbers in the Eight Sectional Factor Analyses to the Appropriate OAI Work Element (Item) Numbers 204

26. Means and Standard Deviations for 115 OAI Information Received Items Based on the OAI Ratings of 1414 Jobs . . . 212

27. Means and Standard Deviations for 38 Mental Activities Items Based on the OAI Ratings of 1414 Jobs 213

28. Means and Standard Deviations for 167 Physical Work Behavior Items Based on the OAI Ratings of 1414 Jobs . . . 214

29. Means and Standard Deviations for 22 General Physical Requirements Items Based on the OAI Ratings of 1414 Jobs . . 216

30. Means and Standard Deviations for 39 Representational Work Behavior Items Based on the OAI Ratings of 1414 Jobs . . . 217

Table Page

31. Means and Standard Deviations for 32 Interpersonal Work Behavior Items Based on the OAI Ratings of 1414 Jobs . . . 218

32. Means and Standard Deviations for 112 Work Goals Items Based on the OAI Ratings of 1414 Jobs 219

33. Means and Standard Deviations for 77 Work Context Items Based on the OAI Ratings of 1414 Jobs 220

34. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 115 Work Elements in the Information Received Section 222

35. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 38 Work Elements in the Mental Activities Section 225

36. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 167 Work Elements in the Physical Work Behavior Section 226

37. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 22 Work Elements in the General Physical Requirements Section 230

38. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 39 Work Elements in the Representational Work Behavior Section 231

39. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 32 Work Elements in the Interpersonal Work Behavior Section 232

40. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 112 Work Elements in the Work Goals Section 233

41. Eigenvalues, Cumulative Proportion of Total Variance, and Communalities from the Factor Analysis of 77 Work Elements in the Work Context Section 236

42. Loadings for 20 Orthogonally Rotated Information Received Factors (115 Variables, or Work Elements) 239

43. Loadings for 10 Orthogonally Rotated Mental Activities Factors (38 Variables, or Work Elements) 243

44. Loadings for 30 Orthogonally Rotated Physical Work Behavior Factors (167 Variables, or Work Elements) 244

Table | Page

45. Loadings for 9 Orthogonally Rotated General Physical Requirements Factors (22 Variables, or Work Elements) 252

46. Loadings for 12 Orthogonally Rotated Representational Work Behavior Factors (39 Variables, or Work Elements) 253

47. Loadings for 11 Orthogonally Rotated Interpersonal Work Behavior Factors (32 Variables, or Work Elements) 255

48. Loadings for 26 Orthogonally Rotated Work Goals Factors (112 Variables, or Work Elements) 257

49. Loadings for 14 Orthogonally Rotated Work Context Factors (77 Variables, or Work Elements) 263

50. Loadings for 20 Obliquely Rotated Information Received Factors 267

51. Loadings for 10 Obliquely Rotated Mental Activities Factors 271

52. Loadings for 30 Obliquely Rotated Physical Work Behavior Factors 272

53. Loadings for 9 Obliquely Rotated General Physical Requirements Factors 278

54. Loadings for 12 Obliquely Rotated Representational Work Behavior Factors 279

55. Loadings for 11 Obliquely Rotated Interpersonal Work Behavior Factors 280

56. Loadings for 26 Obliquely Rotated Work Goals Factors . . . 281

57. Loadings for 14 Obliquely Rotated Work Context Factors . . 285

58. Coefficients of Congruence Between the Two Subsamples for 20 Orthogonally Rotated Information Received Factors 288

59. Coefficients of Congruence Between the Two Subsamples for 10 Orthogonally Rotated Mental Activities Factors 289

60. Coefficients of Congruence Between the Two Subsamples for 30 Orthogonally Rotated Physical Work Behavior Factors 290

61. Coefficients of Congruence Between the Two Subsamples for 9 Orthogonally Rotated General Physical Requirements Factors 292

62. Coefficients of Congruence Between the Two Subsamples for 12 Orthogonally Rotated Representational Work Behavior Factors 293

Table Page

63. Coefficients of Congruence Between the Two Subsamples for 11 Orthogonally Rotated Interpersonal Work Behavior Factors . 294

64. Coefficients of Congruence Between the Two Subsamples for 26 Orthogonally Rotated Work Goals Factors 295

65. Coefficients of Congruence Between the Two Subsamples for 14 Orthogonally Rotated Work Context Factors 297

66. Coefficients of Congruence Between the Two Subsamples for 20 Obliquely Rotated Information Received Factors 299

67. Coefficients of Congruence Between the Two Subsamples for 10 Obliquely Rotated Mental Activities Factors 300

68. Coefficients of Congruence Between the Two Subsamples for 30 Obliquely Rotated Physical Work Behavior Factors 301

69. Coefficients of Congruence Between the Two Subsamples for 9 Obliquely Rotated General Physical Requirements Factors . . 303

70. Coefficients of Congruence Between the Two Subsamples for 12 Obliquely Rotated Representational Work Behavior Factors . 304

71. Coefficients of Congruence Between the Two Subsamples for 11 Obliquely Rotated Interpersonal Work Behavior Factors . . . 305

72. Coefficients of Congruence Between the Two Subsamples for 26 Obliquely Rotated Work Goals Factors 306

73. Coefficients of Congruence Between the Two Subsamples for 14 Obliquely Rotated Work Context Factors 307

74. Matrix of Intercorrelations Among the 132 First-Order OAI Factors 309

75. Eigenvalues, Cumulative Proportion of Variance, and Communalities from the Higher-Order Factor Analysis of 132 First-Order Factors 324

76. Higher-Order Factor Matrix Before Rotation (132 Variables, or First-Order Factors) 327

77. Loadings for 28 Orthogonally Rotated Higher-Order Factors (132 Variables, or First-Order Factors) 334

78. Coefficient of Congruence Between the Total Sample and Subsample A for 28 Orthogonally Rotated Higher-Order OAI Factors 342

Table Page

79. Coefficients of Congruence Between the Total Sample and Subsample B for 28 Orthogonally Rotated Higher-Order OAI Factors 344

80. Coefficients of Congruence Between the Two Subsamples for 28 Orthogonally Rotated Higher-Order OAI Factors 346

INTRODUCTION AND PURPOSE

The present study was part of a long-range effort, the Ergometric Research and Development Project, directed toward the development of a quantitative occupational taxonomy applicable to occupationally related education and guidance.

The basic instrument in this taxonomic effort is the Occupation Analysis Inventory (OAI), containing 622 "work elements" (descriptions of different types of work activities and conditions) on which jobs and occupations are rated (Cunningham, Tuttle, Floyd, and Bates, 1974). The OAI work elements were generated within the broad framework of an information processing paradigm (Figure 1) whose components were subdivided according to selected conceptual frameworks pertaining to human behavior and work technology; the work elements were constructed within the resultant subcategories (shown in Table 1). The completed instrument represented an attempt to achieve as much specificity (or content loading) in occupational description as possible, while retaining applicability to the entire occupational spectrum. The OAI was thus conceived as ". . . an instrument that falls near a specificity-generality threshold separating general descriptive devices from devices designed for restricted categories of jobs and occupations" (Cunningham _et al._, 1974, p. 5).

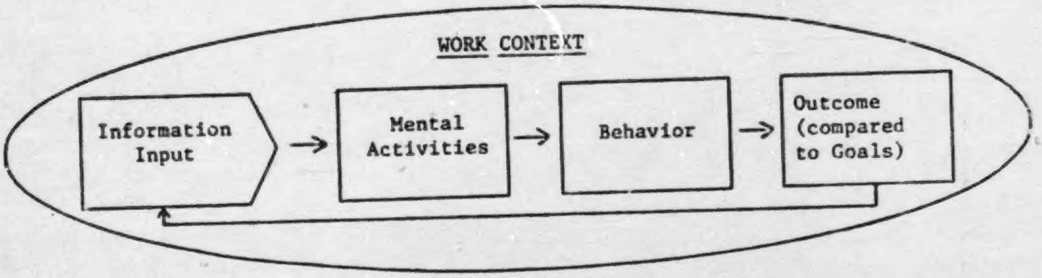

Figure 1. Paradigm of the Occupation Analysis Inventory (OAI)

Table 1

Subdivisions of the Occupation Analysis Inventory (OAI)

A. INFORMATION RECEIVED

INFORMATION CONTENT
  - Mechanical information
  - Electrical and electronic information
  - Spatial/structural information
  - Materials information
  - Environment information
  - Art/decorative information
  - Biological/health information
  - Semantic/symbolic information
  - Business/sales information
  - Information about people and animals

SENSORY CHANNEL

B. MENTAL ACTIVITIES
  - Figural information processing
  - Symbolic information processing
  - Semantic information processing
  - Behavioral information processing
  - Educational and experiential requirements

C. WORK BEHAVIOR

PHYSICAL WORK BEHAVIOR
- Tool, Machine, and Equipment Usage
  - Non-powered hand tools
  - Portable powered tools/equipment
  - Portable non-powered equipment
  - Stationary machines and equipment
  - Mechanized equipment
  - Setting/control devices
  - Measurement, layout, and scientific devices

- General Physical Requirements and Work Activities
  - General physical requirements
  - Work activities involving materials, objects, and machines
  - Work activities involving humans and animals

- Objects/Materials Acted Upon
  - Living objects
  - Crude materials
  - Processed materials
  - Finished parts and components
  - Finished products

Table 1 (continued)

- REPRESENTATIONAL WORK BEHAVIOR
  - Representational devices
  - Written and spoken verbal communications
  - Symbolic and numerical communications
  - Miscellaneous aspects of communication
  - Data processing activities

- INTERPERSONAL WORK BEHAVIOR
  - Interpersonal activities
  - Person types

D. WORK GOALS
  - Mechanical objectives
  - Electrical objectives
  - Objectives accomplished through material/object arrangement or modification
  - Environmental/earth objectives
  - Art/decorative objectives
  - Biological/health objectives
  - Semantic/symbolic objectives
  - Business/organizational objectives
  - Objectives related to people and animals

E. WORK CONTEXT
  - Physical context
  - Job structure
  - Miscellaneous conditions and requirements
  - Social context
  - Incentives

In two previous studies (Riccobono and Cunningham, 1974a, 1974b), a total of 814 jobs (U. S. Employment Service job descriptions) was rated on the OAI, and the rating data were subjected to a series of factor analyses which reduced 407 OAI work elements to a smaller number of basic "work dimensions," or factors. The factor analyses in the first study were performed with a sample of 400 jobs representing the percentages of jobs in the major occupational categories of the Dictionary of Occupational Titles, while factor analyses in the second study were performed with a sample of 414 jobs drawn in proportion to the numbers of people employed under the major occupational categories of the U. S. Bureau of Labor Statistics. In both studies, seven different sections of OAI work elements were factor analyzed separately. Factor comparisons between the two studies based on Tucker's coefficient of congruence showed moderate to low factorial stability, depending upon the section of OAI work elements from which the factors were derived.

Factor analyses were also performed in the second study (Riccobono and Cunningham, 1974b) on the ratings of the combined sample of 814 jobs. Seven sectional analyses produced 90 first-order factors, and an overall analysis of the first-order factors yielded 22 general higher-order factors. These factors were generally meaningful and were believed to be more stable than the factors derived from the two smaller samples. Moreover, subsequent studies have provided some support for (a) the factors' validity in relation to the measured abilities, interests, and needs of workers (Bates and Cunningham, in press; Tuttle and Cunningham, 1974) and (b) the factors' potential utility in deriving an occupational cluster structure (Riccobono, Cunningham, and Boese, 1975).

Although the results of the previous factor analytic studies of the OAI were encouraging, it was believed that further research could produce a more stable and interpretable set of OAI factors. The present study was designed for that purpose. The objectives of the study were as follows:

(1) The first objective was to obtain OAI ratings on an additional 600 jobs, thus enlarging the sample to a total of 1414 jobs. It was believed that a larger, more representative job sample would produce a more differentiated and stable set of OAI factors.

(2) The second objective was to derive a meaningful set of OAI "work dimensions" through factor analysis of the OAI ratings of the 1414 jobs. Pursuant to that objective, eight separate sections of OAI work elements were factor analyzed, and the resultant first-order factors were, in turn, subjected to an overall (higher-order) factor analysis.

(3) The third objective was to estimate the stability of the factors derived under Objective 2, above. Objective 3 was accomplished by (a) dividing the total sample of 1414 jobs into two subsamples of 707 jobs each, (b) applying the factor analyses performed on the total sample to each of the two subsamples, and (c) determining relationships between factors from the two subsamples by use of Tucker's coefficient of congruence.

PROCEDURES

The procedures are described under three main headings: The Job Sample, Sectional Factor Analyses, and Higher-Order Factor Analysis.

The Job Sample

As indicated, 600 additional jobs were added to the original sample of 814, increasing the sample to a total of 1414 jobs. The additional jobs were drawn so that the cumulative sample of 1414 jobs would be approximately representative of the percentages of workers employed in five major occupational categories according to U. S. Census figures, i.e., so that the percentages of jobs sampled from each of the five occupational categories would approximately equal the percentages of workers employed in those categories. Table 2 shows the distribution of the total job sample in relation to the distribution of the U. S. work force. The first four categories in Table 2 correspond to four of the nine major categories in the Dictionary of Occupational Titles (or DOT, U. S. Department of Labor, 1965), while the fifth category in the Table subsumes four additional DOT categories; appropriate Census categories (U. S. Department of Commerce, 1973) were combined and matched with the five DOT-based categories. Appendix A describes the procedures by which the samples comprising the total of 1414 jobs were drawn, and Appendix B lists the 1414 job titles and DOT code numbers.

The OAI ratings of the 1414 jobs were performed on written job descriptions drawn from the files of the U. S. Employment Service.[1] The descriptions were based on jobs with the same (or similar) titles and DOT code numbers as occupations that had been selected from the DOT.[2] The 600 job descriptions drawn specifically for the present study were rated by the same procedure as the previously rated 814 jobs (Riccobono and Cunningham, 1974a, 1974b). The additional 600 jobs

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[1] The job descriptions (or "job schedules") were obtained from the USES Occupational Analysis Field Center, Employment Security Commission, Raleigh, North Carolina. This agency is responsible for compiling the job schedules from which the descriptions in Volume I of the Dictionary of Occupational Titles are abstracted.

[2] Although occupations were selected, jobs representing each occupation were rated on the OAI. For purposes of the Ergometric Project, an "occupation" is defined as a set of similar jobs across different establishments, while a "job" is defined as a set of similar positions existing within the same establishment; a "position" is occupied by one worker (Cunningham, 1974).

Table 2

Numbers and Percentages of Jobs Drawn from Five Related Occupational Categories of the Dictionary of Occupational Titles and the U. S. Census (N = 1414)

Major Categories	Three-Digit DOT Codes	Number in Sample	Percentage of the Sample	Percentages of U. S. Work Force
1. Professional, Technical, and Managerial Occupations	000-199	327	23.1	23.1
2. Clerical and Sales Occupations	200-299	355	25.1	25.1
3. Service Occupations	300-399	181	12.8	12.8
4. Farming, Fishery, Forestry, and Related Occupations	400-499	44	3.1	3.1
5. Operatives, Skilled Trades, and Related Occupations	500-999	507	35.9	35.9
	TOTAL	1414		

were rated by eight professional job analysts and 15 graduate students in psychology; each analyst rated approximately 25 jobs. As in the Riccobono and Cunningham studies, each job was rated by one analyst (professional job analyst or graduate student).

A copy of the OAI is appended to a previous Ergometric report (Cunningham et al., 1974). Appendix C in the present report describes two inter-rater reliability analyses of the OAI items (work elements) and presents the item reliability estimates.

For the purpose of the factorial stability analyses (described in a later section), the total sample of 1414 jobs was divided into two subsamples of 707 jobs each. This was accomplished by ordering and stratifying the jobs according to their nine-digit DOT code numbers and then randomly assigning jobs under each DOT code to the two subsamples. The following procedures were used in assigning jobs with the same DOT code numbers to the two subsamples:

> (1) In cases where an odd number of jobs (including only one job) had the same code number, it was determined by a coin flip that for the first such case, the first job would be assigned to Subsample A, the second job would be assigned to Subsample B, and the remaining jobs would be assigned alternately to the two subsamples. For the second case where an odd number of jobs had the same code number, the first job was assigned to Subsample B, and the remaining jobs were assigned alternately to the two subsamples. The two preceding rules were applied alternately until all cases (code numbers) containing odd numbers of jobs were divided into Subsample A and B.
>
> (2) In cases where an even number of jobs had the same code number, it was also determined by a coin flip that for the first such case, the first job would be assigned to Subsample A, the second job would be assigned to Subsample B, and the remaining jobs would be assigned alternately to the two subsamples. The remainder of the assignment procedure for cases containing even numbers of jobs was the same as that described above for cases with odd numbers of jobs.

Under the above procedures, each of the two subsamples was assigned 707 jobs. Appendix D identifies the jobs assigned to each subsample.

Sectional Factor Analyses

Eight separate sections of OAI work elements (items) were factor analyzed: (1) Information Received, (2) Mental Activities, (3) Physical Work Behavior, (4) General Physical Requirements, (5) Representational Work Behavior, (6) Interpersonal Work Behavior, (7) Work Goals, and (8) Work Context. Each of the eight sectional analyses was performed on an IBM 370/165 computer as follows:

1. The matrix of intercorrelations among the OAI items was calculated leaving ones in the major diagonal.
2. The eigenvalues of the intercorrelations matrix were extracted by the principal axes procedure.
3. The eigenvalues were plotted in order of their extraction, and Cattell's (1966) "scree test" was used to determine the number of factors to be rotated. (The test of discontinuity and Kaiser's criterion were also applied and considered--Rummel, 1970.)

(4) The intercorrelation matrix was recalculated, and the principal axes procedure was repeated, except this time multiple correlations were used to estimate item communalities.

(5) The number of factors determined in Step 3 were orthogonally rotated to a varimax criterion (Dixon, 1970).

(6) Finally, the orthogonal factors obtained in Step 5 were subjected to oblique rotation by Cattell and Muerle's (1960) "maxplane" procedure.

Steps 1, 2, 4, and 5 were carried out with the Biomedical Computer Programs (Dixon, 1970), and Step 6 was carried out with an adaptation of Cattell's maxplane program.[3]

The eight sectional factor analyses were applied separately to the total sample of 1414 jobs and to each of the subsamples of 707 jobs. Steps 1 through 6 in the above procedure were followed in the factor analyses on the total sample. It was decided, however, that the same numbers of factors rotated in the eight sectional analyses on the total sample would also be rotated in the corresponding analyses on the two subsamples. For that reason, only Steps 4 through 6 in the above procedure were applied in the factor analyses on the subsamples. Appendix E identifies the OAI items (work elements) included in each of the eight sectional factor analyses. A copy of the OAI is contained in the appendix of a previous Ergometric report (Cunningham _et al._, 1974).

For the purpose of estimating the stability of the eight sectional factor structures, the eight rotated factor matrices from Subsample A were related to the corresponding matrices from Subsample B by Tucker's coefficient of congruence; i.e., a coefficient of congruence was computed between each column of loadings in a Subsample-A factor matrix and every column of loadings in the corresponding Subsample-B matrix (Gorsuch, 1974; Harman, 1960; Tucker, 1951). Thus, for each of the eight sectional factor analyses performed on the subsamples, a square matrix of congruence coefficients was computed of an order equal to the number of rotated factors. The congruence analysis was performed separately on the orthogonal and the oblique factor matrices (i.e., the matrices obtained in Steps 5 and 6 of the previously described procedure). According to Gorsuch (1974), the coefficient of congruence between the loadings on two factors is equal to the correlation between scores for the two factors, in the case of orthogonal components.

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[3] The maxplane program was furnished by Dr. William Katzenmyer, Duke University.

Higher-Order Factor Analysis

For the purpose of merging all eight sections of the OAI into one set of general work dimensions, the orthogonally rotated first-order factors obtained in the previously described sectional analyses were, in turn, subjected to an overall higher-order factor analysis. The first step in that higher-order analysis entailed computing the first-order factor intercorrelations from the factor scores. Since the first-order factors had been orthogonally rotated within the eight OAI sections, non-zero correlations were obtained only between factors from different sections. The remainder of the higher-order factor analytic procedure was the same as that described previously for the sectional factor analyses, with the exception of Step 6, which was omitted (i.e., only orthogonal rotations were performed). The higher-order factor analysis was performed separately on the total sample of 1414 jobs and on each of the two subsamples of 707 jobs. As in the sectional analyses, the same number of factors rotated for the total sample was also rotated for the two subsamples. Thus, only Steps 4 and 5 of the previously described procedure were applied to the subsamples.

The stability of the obtained higher-order factor structure was estimated by essentially the same procedure described for the sectional factors. A coefficient of congruence was computed between each column of loadings in the Subsample-A factor matrix and every column of loadings in the Subsample-B matrix. In addition, however, a coefficient of congruence was computed between each column of loadings in the total-sample factor matrix and every column in each of the two subsample matrices. Thus, three matrices of congruence coefficients were computed: one between Subsamples A and B, another between the total sample and Subsample A, and a third between the total sample and Subsample B. Based on the coefficients of congruence between the total sample and the subsamples, each factor in the two subsamples was matched with its most highly related factor in the total sample. Coefficients of congruence were then identified between factors from the two subsamples that had been matched with the same factors from the total sample. The coefficients between commonly matched factors from the two subsamples served as stability estimates for their linking factors in the total sample.

RESULTS

The results of the eight sectional factor analyses are presented first, followed by the results of the higher-order factor analysis.

Results of the Sectional Factor Analyses

Appendix E identifies the OAI items (work elements) involved in the eight sectional factor analyses and presents the item means and standard deviations based on the OAI ratings of 1414 jobs. The OAI inter-rater item reliabilities based on a smaller job sample are shown in Appendix C. Appendix F contains the eigenvalues, cumulative proportions of variance, and communalities from the eight sectional factor analyses on the total job sample; and Appendices G and H contain the orthogonally and obliquely rotated factor matrices.

This section of the Results is presented under two headings: (1) Coefficients of Congruence Between the Two Subsamples and (2) Sectional Factors Derived from the Total Sample.

Coefficients of Congruence Between the Two Subsamples

As described earlier, coefficients of congruence were computed between the factors emerging from eight sectional factor analyses on two subsamples of jobs. Coefficients were computed separately for the orthogonal and oblique factor matrices. The coefficients of congruence for the orthogonal factors are shown in Appendix I, and the coefficients for the oblique factors in Appendix J. Tables 3 and 4 present the distribution of the highest coefficients of congruence for the orthogonal and oblique sectional factors, respectively. The frequencies in these two tables represent the highest coefficients of congruence between sectional factors from Subsamples A and B; i.e., within each OAI section, the highest congruence coefficient was identified between each Subsample-A factor and the factors in Subsample B. Thus, Tables 3 and 4 present distributions based on the highest 132 coefficients of congruence for the 132 sectional factors in Subsample A.

A comparison of Tables 3 and 4 shows that the coefficients of congruence were generally higher for the orthogonal than the oblique factors. The median value for the orthogonal factors falls in the .80 - .89 interval, while the median value for the oblique factors falls in the .70 - .79 interval. Moreover, 80 percent of the coefficients for the orthogonal factors are .60 or higher and 44 percent are .90 or higher, compared to percentages of 67 and 14, rerespectively, for the oblique factors.

Table 3

Distributions of the Highest Coefficients of Congruence for 132 Orthogonally Rotated Factors from Eight Sectional Analyses of the OAI

Coefficient Categories	OAI Sections[a] 1	2	3	4	5	6	7	8	Total	Category Proportion	Cumulative Proportion
.90-.99	13	5	4	7	10	7	7	5	58	.440	1.000
.80-.89	3	3	2	1	1	2	4	3	19	.145	.560
.70-.79	1	0	4	1	0	0	8	2	16	.121	.415
.60-.69	1	0	8	0	0	2	1	0	12	.091	.294
< .60	2	2	12	0	1	0	6	4	27	.203	.203
Totals	20	10	30	9	12	11	26	14	132	1.00	

[a] The titles of the eight OAI sections were as follows: (1) Information received, (2) Mental Activities, (3) Physical Work Behavior, (4) General Physical Requirements, (5) Representational Work Behavior, (6) Interpersonal Work Behavior, (7) Work Goals, and (8) Work Context.

Table 4

Distributions of the Highest Coefficients of Congruence for 132 Obliquely Rotated Factors from Eight Sectional Analyses of the OAI

Coefficient Categories	OAI Sections[a] 1	2	3	4	5	6	7	8	Total	Category Proportion	Cumulative Proportion
.90-.99	4	2	0	3	5	2	2	0	18	.136	1.000
.80-.89	7	3	1	3	5	4	4	2	29	.219	.864
.70-.79	4	2	2	1	0	4	7	3	23	.174	.645
.60-.69	2	3	6	2	0	0	2	4	19	.145	.471
< .60	3	0	21	0	2	1	11	5	43	.326	.326
Totals	20	10	30	9	12	11	26	14	132	1.00	

[a] The titles of the eight OAI sections were as follows: (1) Information Received, (2) Mental Activities, (3) Physical Work Behavior, (4) General Physical Requirements, (5) Representational Work Behavior, (6) Interpersonal Work Behavior, (7) Work Goals, and (8) Work Context.

Factors Derived from Eight Sectional Analyses on the Total Sample

As noted, eight separate sections of OAI work elements (items) were factor analyzed: (1) Information Received, (2) Mental Activities, (3) Physical Work Behavior, (4) General Physical Requirements, (5) Representational Work Behavior, (6) Interpersonal Work Behavior, (7) Work Goals, and (8) Work Context. Appendix E identifies the OAI items (work elements) included in each of the eight sectional factor analyses. A copy of the OAI is contained in a previous Ergometric report (Cunningham et al., 1974). Appendix F contains the eigenvalues, cumulative proportions of variance, and communalities from the eight sectional analyses on the total sample; and Appendices G and H contain the orthogonally and obliquely rotated factor matrices.

Because the coefficients of congruence were generally higher for the orthogonally than the obliquely rotated factors, only the orthogonal factors were interpreted. The orthogonal factors are described below under their respective sectional headings.

Dimensions of Information Received

The factor analysis of 115 work elements in the Information Received section of the OAI produced 20 factors accounting for 59.7 percent of the total variance. The salient factor loadings of the work elements are presented in Table 5; Appendix G contains the complete factor matrix. The factors are described below.

Factor A-1: Electrical and electronic information--information obtained from operating, diagnosing, and observing electrical devices or from relevant drawings, displays, and written materials. Examples of jobs with high scores on this factor include: factory maintenance man, electrical engineering associate, radio mechanic, substation operator, and nuclear engineer.

Factor A-2: Business-related numerical information--numerical information from tables, graphs, ledgers, contracts, and written business materials. Examples of jobs with high scores on this factor include: sales manager, technical reporting analyst, portfolio investment analyst, business form salesperson, log sales coordinator, and bookkeeper.

Factor A-3: Health and biological information--information from the oral description of symptoms, medical tests, biological measurements, pictures, written materials, and direct contact with patients and medical or biological materials. Examples of jobs with high scores on this factor include: supervisor of nursing, radiological technician, general practitioner, veterinarian, bio-instrumentation technician, psychiatrist, psychiatric technician, physical therapist, and medicine aide.

Factor A-4: Environmental information--information from direct contact with soil, plant life, or environmental conditions, and from maps, tables, charts, weather reports, and related written materials. Examples of jobs indicating the extent of this factor include: vegetable grower, farm foreman, game farm manager, forester aide, fire lookout, orchard foreman, hydrologist, logging manager, and water works engineer.

Factor A-5: Visual arts information--information from direct contact with others, forms, and arrangements of objects; and from sketches, models, or related written materials. Job examples include: layout artist, art teacher, furniture designer, sculptor, executive art director, display manager, and naval architect.

Factor A-6: Information from machines--information from the maintenance, operation, or assembly of machines. Jobs with high scores on this factor include: boring-mill operator, service station mechanic, airplane captain, millwright, automotive engineer, and substation operator.

Factor A-7: Materials information--information from the physical characteristics and quality of materials and substances. Examples of

Table 5

Salient Loadings of OAI Work Elements on 20 Information Received Factors

Work Factor		Rotated Loading[a]
Factor A-1: Electrical and electronic information		
16i	Malfunctions of specific electrical/electronic parts or components	.84
15i	Interrelations or interconnections of electrical or electronic parts	.83
19i	Electrical/electronic symbols and codes	.81
13i	Overall performance of electrical/electronic devices	.80
18i	Electrical/electronic schematics and diagrams	.79
21i	Electrical/electronic test equipment and measuring devices	.78
22i	Written material pertaining to electrical or electronic devices	.78
14i	State of preventive maintenance	.74
20i	Displays conveying electrical/electronic information	.74
23i	Written material pertaining to basic principles of electricity/electronics	.71
17i	Regulation and control of electrical and electronic systems	.63
45i	Conductivity	.57
Factor A-2: Business-related numerical information		
86i	Frequency of numerical information	.75
97i	Numerical business information	.73
84i	Complexity of numbers	.72
88i	Information in numerical form	.71
87i	Tables and graphs	.68
85i	Signs and symbols representing numerical operations and relations	.66
99i	Written business information	.65
98i	Business graphs, charts, or diagrams	.59
79i	Content or meaning of written material	.55
92i	Numerical or coded information	.52
91i	Verbal information	.52
100i	Contracts and other legal written information	.50
80i	Correspondence of contents of one manuscript or list with another	.41
83i	Proper classification	.39
96i	Customers and clients	.38
93i	Money or other medium of exchange	.36

Table 5 (continued)

Work Factor		Rotated Loading[a]
Factor A-2 (continued)		
112i	Descriptions of individuals	.31
115i	Tables, diagrams, graphs, etc., conveying information about people	.30
Factor A-3: Health and biological information		
77i	Verbal information concerning symptoms, feelings, activities, requests	.81
76i	Measuring or testing devices	.79
75i	Pictures or diagrams	.78
78i	Written material pertaining to biology, health, or nutrition	.76
70i	State of health and hygiene	.75
72i	Expressions indicating physical feelings such as pain	.74
73i	Materials and devices related to biology or health	.74
69i	Dietary needs or deficiencies	.62
101i	Physical condition of people	.61
71i	Miscellaneous biological characteristics of people or animals	.61
74i	Materials related to nutrition, sanitation, or food preparation	.32
Factor A-4: Environmental information		
51i	Soil	.81
50i	Plant life	.79
56i	Environmental emergencies	.77
53i	Water conditions	.76
55i	Weather and atmospheric conditions	.73
52i	Terrain and geological features	.71
51i	Tables and graphs	.66
60i	Written material pertaining to the environment	.65
58i	Environmental test equipment and measuring devices	.62
57i	Charts or maps	.62
Factor A-5: Visual arts information		
61i	Colors and color schemes	.79
62i	Form or shape of objects	.74
63i	Location of objects or people in space for aesthetic purposes	.71

Table 5 (continued)

	Work Factor	Rotated Loading[a]
Factor A-5 (continued)		
66i	Sketches, models, or other graphic information	.70
68i	Written material pertaining to art or decorations	.53
27i	Interrelation or arrangement of unconnected objects	.41
95i	Advertising material	.37
Factor A-6: Information from machines		
1i	Overall state of mechanical information	.87
4i	Malfunction of specific parts or components	.84
3i	State of preventive maintenance	.81
2i	Quantity and quality of machine output	.76
6i	Interrelations of mechanical parts	.75
7i	Mechanical motion	.74
5i	Control or regulation of mechanical devices	.73
9i	Displays	.60
11i	Written material pertaining to mechanical devices	.50
10i	Mechanical test equipment and measuring devices	.46
8i	Mechanical drawings	.43
12i	Written material pertaining to mechanical or physical principles	.32
Factor A-7: Materials information		
38i	Fragility or strength	.68
42i	Hardness	.68
40i	Malleability/ductility	.61
41i	Elasticity	.55
35i	Weight	.55
34i	Surface characteristics	.52
39i	Consistency	.49
33i	Overall quality	.47
46i	Materials measuring and testing devices	.32
43i	Hazard	.31
26i	Appearance of assembled or constructed objects in relation to prescribed standards	.31
Factor A-8: Spatial/structural/mechanical information		
23i	Written material pertaining to basic principles of electricity/electronics	-.32
18i	Electrical/electronic schematics and diagrams	-.32
10i	Mechanical test equipment and measuring devices	-.33

Table 5 (continued)

	Work Factor	Rotated Loading[a]
Factor A-8 (continued)		
27i	Interrelation or arrangement of unconnected objects within a prescribed space or area	-.36
11i	Written material pertaining to mechanical devices	-.44
12i	Written material pertaining to mechanical or physical principles	-.45
89i	Diagrams, drawings, or maps	-.50
25i	Connections and fastening of objects and parts	-.56
26i	Appearance of assembled or constructed objects	-.57
24i	Interrelation, position, and fit of connected parts or objects	-.57
29i	Drawings, patterns, or diagrams pertaining to unconnected parts	-.59
8i	Mechanical drawings	-.61
32i	Written material pertaining to basic principles of structures	-.65
30i	Measuring and layout devices	-.66
31i	Written material pertaining to interrelated parts and objects	-.75
28i	Drawings, plans, or diagrams pertaining to interconnected parts	-.76
Factor A-9: Information related to people and human behavior		
101i	Physical condition of people	-.31
82i	Grammar or expression	-.34
91i	Verbal information	-.35
109i	Emergency situations involving people	-.43
104i	Physical performance of people	-.44
110i	Habitat of people	-.45
108i	Crowd situations	-.46
115i	Tables, diagrams, graphs, etc., conveying information about people	-.48
112i	Descriptions of individuals	-.53
113i	Characteristics of groups of people and people in general	-.53
107i	Mood, attitudes, feelings, intentions, desires, etc.	-.54
114i	Descriptions of events involving people	-.54
106i	Knowledge, verbal performance, and experience	-.56
111i	Group settings	-.62

Table 5 (continued)

Work Factor		Rotated Loading[a]
Factor A-10:	**Performing arts information**	
64i	Music	.89
67i	Musical notation	.89
65i	Facial expression, body movements, voice characteristics of a performer	.55
Factor A-11:	**Structure and format of written information**	
81i	Format, punctuation, or spelling	.80
82i	Grammar or expression	.68
80i	Correspondence of contents of one manuscript or list with another	.63
83i	Proper classification	.58
90i	Special symbols	.32
Factor A-12:	**Information about animals**	
103i	Grooming and appearance of animals	.83
105i	Performance of animals	.70
71i	Miscellaneous biological characteristics of people or animals	.50
69i	Dietary needs or deficiencies	.38
70i	State of health or hygiene	.37
Factor A-13:	**Abstract mechanical information versus direct structural/mechanical information**	
12i	Written material pertaining to mechanical or physical principles	.42
8i	Mechanical drawings	.32
11i	Written material pertaining to mechanical devices	.30
25i	Connections and fastenings of objects and parts	-.30
24i	Interrelation, position, and fit of connected parts or objects	-.39
26i	Appearance of assembled or constructed objects in relation to prescribed standards	-.40
Factor A-14:	**Food information**	
36i	Flavor, odor, or edibility	.72
74i	Materials and devices related to nutrition, sanitation, food preparation	.65
69i	Dietary needs or deficiencies	.31

Table 5 (continued)

Work Factor		Rotated Loading[a]
Factor A-15:	Indirect environmental information	
58i	Environmental test equipment and measuring devices	-.45
59i	Tables and graphs	-.53
60i	Written material pertaining to the environment.	-.59
Factor A-16:	Direct business/sales information	
107i	Moods, attitudes, feelings, intentions, desires, etc.	-.30
95i	Advertising material	-.41
94i	Merchandise	-.51
93i	Money and other medium of exchange	-.52
96i	Customers and clients	-.60
Factor A-17:	Unnamed	
109i	Emergency situations involving people	-.31
Factor A-18:	Physical science and technology information	
47i	Symbol systems pertaining to materials or substances	.67
49i	Technical written material concerning physicla or chemical properties	.64
44i	Chemical reactivity	.62
46i	Materials measuring and testing devices	.50
58i	Nontechnical written material pertaining to materials or substances	.45
37i	Physical state	.41
43i	Hazard	.40
Factor A-19:	Direct-contact information pertaining to the appearance, poise, and physical capabilities of people	
102i	Grooming, style, and poise of people	.42
104i	Physical performance of people	.39
101i	Physical condition of people	.36
Factor A-20:	Difficulty of numerical information	
84i	Complexity of numbers	.41
85i	Signs and symbols representing numerical operations and relations	.38
86i	Frequency of numerical information	.30

[a] Work elements with loadings less than .30 were omitted.

jobs requiring significant information about materials include: metallurgical technician, gemologist, arc welder, cable assembler, ring stamper, wire drawer, and mechanical engineer.

Factor A-8: Spatial/structural/mechanical information--information pertaining to the spatial arrangement of objects, structural members, and machine components; or relevant written materials. Examples of jobs with high scores on this factor include: naval architect, nuclear engineer, shipfitter, ludlow-machine operator, maintenance pipefitter, fabrication inspector, and bracket mounter.

Factor A-9: Information related to people and human behavior--information from direct observation of the behavior of individuals and groups of people or from indirect sources such as psychological tests, reports, and related written materials. Jobs involving such information include: social director, psychiatric technician, columnist, sociologist, patrolman, social worker, sports writer, and school principal.

Factor A-10: Performing arts information--information from the direct observation of musical, dramatic, or dance performances and from related written materials or musical scores. Examples of jobs requiring performing arts information include: music supervisor, musician, executive director, recreation director, and music store manager.

Factor A-11: Structure and format of written information--information pertaining to the format, punctuation, spelling, grammar, classification, and correspondence of written materials. Examples of jobs involving such information include: correspondence clerk, secretary, assistant manager, receptionist-bookkeeper, language teacher, and office clerk.

Factor A-12: Information related to animals--information pertaining to the appearance, performance, characteristics, and health of animals. Among the jobs with high scores on this factor are: head animal keeper, pet store salesperson, livestock farm hand, hatchery assistant, cattle rancher, and livestock buyer.

Factor A-13: Abstract mechanical information versus direct structural/mechanical information--information from graphic and written materials pertaining to machines and mechanical principles, versus information from observing or inspecting constructed or assembled objects. Some examples of jobs requiring abstract mechanical information include: electromechanical designer, nuclear engineer, tool designer, and thermodynamics engineer. Among jobs requiring direct structural/mechanical information are: plastic container maker, packaging machine operator, paper-making machine tender, and foundry worker.

Factor A-14: Food information--information from the odor or flavor of foods or from substances and devices relevant to nutrition, sanitation, and food preparation. Examples of jobs with high scores on this factor include: dietitian, juice bar manager, cook, school lunch supervisor, biologist, chief pharmacist, and quality control worker.

Factor A-15: Indirect environmental information--information pertaining to the environment from written materials, maps, charts, testing apparatus, and scientific devices. Among jobs with high scores on this factor are: fishing vessel first mate, arboreta director, air and water control director, waste treatment consultant, bioinstrumentation technician, aquaculturist, hatchery assistant, and water works engineer.

Factor A-16: Direct business/sales information--information obtained in the process of making sales, serving customers, or handling merchandise; includes information from customers, the media of exchange, merchandise, and advertising material. Examples of jobs using direct business and sales information include: pet store salesperson, wedding gift consultant, usher, leather products salesman, bakery sales clerk, groceryman, wig fitter, and physical therapy aide.

Factor A-17: Unnamed. Since only one work element had a salient loading on this factor and because that loading was low, the factor was not named.

Factor A-18: Physical science and technology information--information pertaining to chemistry, physics, and related physical sciences obtained from chemical reactions, symbols, measuring information, testing devices, and relevant written materials. Examples of jobs with high scores on this factor include: nuclear engineer, pilot control plant operator, chief pharmacist, biologist tester, metallurigical technician, and polymerization foreman.

Factor A-19: Direct-contact information pertaining to the appearance, poise, and physical capabilities of people--information obtained from the direct observation of people pertaining to grooming, style, poise, and physical capability. Examples of jobs with high scores on this factor include: social director, occupational therapist, fashion show coordinator, rehabilitation counselor, store manager, employment clerk, and physical therapist.

Factor A-20: Difficulty of numerical information. Unlike most factors emerging from this section that deal with information content, Factor A-20 is a level-of-difficulty, or complexity, dimension. Frequency of numerical information also loads on the factor. Examples of jobs with high scores on this factor include: analytical engineer, physicist, computer programming instructor, superintendent of electric power tests, and mine machinery mechanic.

Mental Activity Dimensions

The factor analysis of 38 work elements in the Mental Activity section of the OAI yielded 10 factors accounting for 65.4 percent of the total variance. Table 6 presents the salient factor loadings, and Appendix G contains the complete factor matrix. Each of the 10 Mental Activity factors is described briefly below.

Table 6

Salient Loadings of OAI Work Elements on 10
Mental Activity Factors

Work Factor	Rotated Loading[a]
Factor B-1: Semantic thinking	
32m Idea expression	.77
34m Plan elaboration	.76
33m Idea flexibility	.73
31m Idea production	.72
24m Problem detection	.70
27m Memory of associated ideas	.66
37m Person perception	.66
38m Group perception	.65
23m Problem comprehension	.64
25m Memory of unitary ideas	.63
28m Deductive reasoning	.61
30m Idea originality	.58
29m Plan ordering	.57
36m Verbal construction	.57
22m Verbal comprehension	.55
26m Memory of idea sequences	.50
18m Word fluency	.49
35m Associational fluency	.49
Factor B-2: Figural information processing	
4m Object visualization	.75
2m Object discovery	.70
6m Figural memory	.68
7m Figural problem-solving	.67
5m Visual tracing	.67
1m Object recognition	.65
3m Spatial orientation	.57
9m Form perception	.55
8m Figural ingenuity	.43
26m Memory of idea sequences	.33
Factor B-3: Numerical and symbolic thinking	
16m Symbolic deduction	.83
17m Symbolic operations sequencing	.79
19m Symbolic generation	.73
12m Comprehension of symbolic procedures	.72
21m Evaluation of symbolic procedures	.72
13m Symbolic induction	.65

Table 6 (continued)

Work Factor		Rotated Loading[a]
Factor B-3 (continued)		
15m	Numerical computation	.47
28m	Deductive reasoning	.47
23m	Problem comprehension	.36
33m	Idea flexibility	.34
34m	Plan elaboration	.31
24m	Problem detection	.31
Factor B-4: Routine symbolic and semantic information processing: clerical activities		
11m	Spelling	.72
20m	Clerical perception	.70
36m	Verbal construction	.51
15m	Numerical computation	.38
14m	Symbolic memory	.36
22m	Verbal comprehension	.36
18m	Word fluency	.31
Factor B-5: Aesthetic/figural creativity		
10m	Aesthetic judgment	.69
8m	Figural ingenuity	.55
30m	Idea originality	.45
Factor B-6: Associational fluency		
35m	Associational fluency	.53
18m	Word fluency	.47
36m	Verbal construction	.38
13m	Symbolic induction	.30
Factor B-7: Behavioral perception		
38m	Group perception	-.31
37m	Person perception	-.46
Factor B-8: Figural comprehension versus figural problem-solving		
2m	Object discovery	.36
1m	Object recognition	.34
7m	Figural problem-solving	-.36

Table 6 (continued)

Work Factor		Rotated Loading[a]
Factor B-9: Memory		
14m	Symbolic memory	.55
25m	Memory of unitary ideas	.39
26m	Memory of idea sequences	.38
6m	Figural memory	.34
Factor B-10: Semantic problem detection and comprehension		
23m	Problem comprehension	-.38
24m	Problem detection	-.43

[a] Work elements with loadings less than .30 were omitted.

Factor B-1: Semantic thinking--mental activities involving the processing, manipulation, and production of semantic information, or information to which words are commonly attached; verbal thinking. Examples of jobs requiring semantic thinking include: columnist, social director, advertising director, language teacher, corporation president, and legislative liaison.

Factor B-2: Figural information processing--mental activities involving the processing of information pertaining to things (for example: machines, structures, various objects being acted upon, object parts, people and animals as objects, figures and drawings, etc.). Examples of jobs with high scores on this factor include: mechanical engineering assistant, layout artist, water distribution system designer, electrical engineering associate, timber agent, and production mechanic.

Factor B-3: Numerical and symbolic thinking--mental activities involving the processing, manipulation, and generation of numerical and other symbolic information. Examples of jobs requiring numerical and symbolic thinking include: computer programming instructor, systems planning manager, tabulating machine operator, naval architect, physicist, analytical engineer, mathematicina, and cost analysis engineer.

Factor B-4: Routine symbolic and semantic information processing: clerical activities--mental activities involving the processing, manipulation, and production of routine symbolic and semantic information; includes such activities as spelling, checking, numerical computation, and routine proofing, editing, and writing. Examples of jobs for which this mental activity factor is relevant include: office clerk, secretary, stenographer, inventory clerk, assistant manager, and mark-up clerk.

Factor B-5: Aesthetic/figural creativity--mental activities involving the processing of aesthetic and other aspects of figural information for the purpose of producing original outcomes. Examples of jobs with high scores on this factor include: lay-out artist, furniture designer, display manager, executive art producer, hair stylist, gemologist, artist, and water distribution designer.

Factor B-6: Associational fluency--mental activities that rapidly emit words which are similar or opposite in meaning to some specified word. Examples of jobs requiring associational fluency include: sociologist, tour guide, author, sports writer, language teacher, columnist, college faculty member, and advertising director.

Factor B-7: Behavioral perception--mental activities involving the processing and interpretation of information conveyed through the expressive behaviors of other persons, such as facial expressions, body movements, posture, gestures, tones of voice, etc. Examples of jobs requiring behavioral perception include: psychiatrist, credit and collections manager, clergyman, language teacher, social director, and production foreman.

Factor B-8: Figural comprehension versus figural problem-solving. This factor contrasts mental activities that require only the recognition or comprehension of figural information with those that require, in addition, the solving of problems involving objects and figures where only one, or a very narrow range, of correct solutions is possible. The interpretation of this factor was rather difficult, and its loadings are low. Examples of jobs requiring figural comprehension include: harvest hand, weaver, stenographer, and garment packer. Examples of jobs requiring figural problem-solving include: automotive engineer, furniture designer, draftsman, and thermodynamics engineer.

Factor B-9: Memory--mental activities involving the storing and retention of information. Although symbolic, semantic, and figural information are involved in this factor, symbolic memory has the highest loading. Examples of jobs requiring this factor include: agency appointments supervisor, guard captain, housekeeper, and material coordinator.

Factor B-10: Semantic problem detection and comprehension--mental activities involving (a) recognizing or identifying practical and potential causes and effects, especially in verbally described plans or situations and (b) understanding the structure of problems which are stated (or expressible) in words. Examples of jobs with high scores on this factor include: distribution design engineer, advertising director, manufacturing engineer, and quality control director.

Dimensions of Physical Work Behavior

The factor analysis of 167 work elements in the Physical Work Behavior section of the OAI resulted in 30 factors which accounted for 41 percent of the total variance. The salient factor loadings are presented in Table 7, and the complete factor matrix is contained in Appendix G. The factors are described briefly in the following paragraphs.

Factor C-1: Removing material using stationary machines--physical work activities involved in the operation of stationary metal working machines that drill, shape, grind, saw, or cut by heat. Examples of jobs involving the use of material-removing stationary machines include: shipfitter, metal fabricator, pipe-making welder, machinist, metallurgical technician, lathe operator, and tool-and-die maker.

Factor C-2: Earth working and care/harvesting of plant life--physical work activities using hand tools, portable powered tools, and medium-weight vehicles and equipment to dig, plow, or in related ways work with the earth and earth-grown products such as grains, fruits, vegetables, grass, and timber. Examples of jobs involving this factor include: orchard foreman, vegetable grower, game farm manager, forester, farm hand, and groundskeeper.

Factor C-3: Medical treatment--physical work activities using instruments, equipment, and medical supplies in the treatment of health problems. Examples of jobs with high scores on this factor include: obstetrical consultant, dentist, general practitioner, nursing supervisor, surgical technician, and psychiatrist.

Factor C-4: Repair and maintenance of machines and equipment--physical work activities performed in the repair and maintenance of machines and equipment. Examples of jobs requiring repair and maintenance activities include: auto mechanic, factory maintenance man, offset web press man, production mechanic, and electrical appliance serviceman.

Factor C-5: Combining and separating chemicals and other substances and materials--physical work activities involved in the operation of stationary equipment that combines or separates chemicals and other materials, and the sue of weight and volume measuring instruments. Examples of jobs involving these activities include: medical technologist, twitchell operator, polymerization foreman, baker, laboratory technician, and chief pharmacist.

Factor C-6: Building/repairing wooden structures and products--physical work activities performed in the construction or repair of wooden structures and other products, using a variety of hand and portable powered tools. Examples of relevant jobs include: maintenance carpenter, furniture upholsterer, bracket mounter, hand sander, cabinet maker, and occupational therapy aide.

Table 7

Salient Loadings of OAI Work Elements on 30
Physical Work Behavior Factors

Work Factor		Rotated Loading[a]
Factor C-1: Removing material using stationary machines		
58t	Drilling/perforating	.59
59t	Shaping	.58
36a	Material shaping	.57
9j	Metal, excluding precious metals	.50
60t	Grinding	.47
47t	Cutting by sawing	.45
51t	Cutting by heat	.40
86t	Physical extent	.34
92t	Work layout	.32
79t	Hand-operated continuous settings	.32
25a	Operating/controlling	.30
Factor C-2: Earth working and care/harvesting of plant life		
45a	Earth working	.74
1j	Plant life, including crops, trees, and shrubs	.74
16t	Earth working	.73
37t	Earth working	.73
4j	Terrain features	.72
68t	Medium/light equipment	.62
39j	Man-made land features	.48
23t	Cutting by blade	.42
22t	Cutting by shearing	.37
8j	Non-processed or minimally-processed plant materials, other than wood	.37
26a	Driving/operating	.30
Factor C-3: Medical treatment		
18t	Medical devices	.86
55a	Applying medicines	.80
52a	Examining	.79
53a	Physical treatment, excluding surgery	.79
59t	Medical equipment, powered	.72
54a	Surgical treatment	.58
3j	People	.57
18j	Medical materials	.51
51a	Handling	.47
20t	Precision in non-powered hand tool usage	.33

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-4: Repair and maintenance of machines and equipment		
30a	Diagnosing/troubleshooting	.75
29a	Adjusting/tuning	.74
28a	Servicing	.71
27a	Repairing	.70
31j	Machines and mechanical components, n.e.d.	.45
32a	Installing/connecting	.39
32j	Electrical/electronic equipment and components	.38
87t	Electrical	.36
6t	Mechanical fastening	.34
50a	Testing	.33
79t	Hand-operated continuous settings	.32
Factor C-5: Combining and separating chemicals and other substances and materials		
39a	Combining/separating	.76
64t	Combining/separating	.70
14j	Chemical and petroleum materials and substances	.47
85t	Weight/volume	.46
40a	Chemically treating	.37
88t	Pressure/temperature	.31
Factor C-6: Building/repairing wooden structures and products		
26j	Miscellaneous wooden parts, n.e.d.	.60
21j	Pre-fabricated construction components of wood and related materials	.51
41j	Miscellaneous wooden products	.45
10j	Lumber and related materials	.37
33a	Constructing/building	.32
29t	Mechanical fastening	.30
Factor C-7: Fiber/thread working		
35a	Fiber/thread working	.78
54t	Stitching, knitting, and weaving	.74
27j	Textile, leather, and related synthetic parts	.54
16j	Textile and leather materials, including synthetics	.43
2t	Cutting by shearing	.39
7t	Stitching/wiring	.37
27t	Bonding	.30

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-8: Driving/operating vehicles and mechanized equipment		
26a	Driving/operating	.77
84t	Foot-operated continuous controls	.73
83t	Hand-operated continuous controls	.68
70t	Medium/light highway vehicles	.51
81t	Hand-operated discrete controls	.50
82t	Foot-operated discrete controls	.30
Factor C-9: Surface finishing		
57t	Abrading	.59
48t	Cutting by abrasion	.50
9t	Abrading/polishing	.49
38a	Surface finishing	.46
31t	Abrading/polishing	.38
4t	Cutting by abrasion	.37
40j	Miscellaneous metal products, n.e.d.	.31
Factor C-10: Use of scientific and measuring devices/instruments		
94t	Navigation/guidance/detection	.71
90t	Motion/force	.52
73t	Air vehicles	.38
88t	Pressure/temperature	.36
33j	Professional, measurement, and scientific instruments	.35
74t	Water vehicles	.32
Factor C-11: Operating material-joining equipment		
52t	Fusion	.53
53t	Bonding	.43
42j	Rubber and plastic products	.34
28j	Miscellaneous parts of materials other than metal, wood, or textiles	.33
55t	Mechanical fastening	.31
Factor C-12: Tending/feeding/offbearing stationary machines		
56t	Liquid application/coating	-.36
75t	Material conveyors	-.36
77t	Hand-operated discrete settings	-.42
23a	Feeding/offbearing	-.51
24a	Tending	-.65

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-13: Material forming		
37a	Material forming	.72
61t	Forming	.69
11t	Forming	.48
Factor C-14: Use of handling of sporting equipment		
38t	Sporting equipment	.79
17t	Sporting equipment	.75
Factor C-15: Processing food materials		
7j	Non-processed or minimally-processed animal materials	-.30
19j	Processed foods, which require further preparation--mixing, cooking, baking	-.52
3t	Cutting by blade	-.57
Factor C-16: Working on the interiors and exteriors of buildings		
35j	Exteriors of large buildings	.65
37j	Interiors of buildings	.58
38j	Outdoor passageways and structures, n.e.d.	.48
36j	Exteriors of small buildings	.47
Factor C-17: Use of handling, holding, and supporting devices		
43t	Supporting	-.30
6t	Mechanical fastening	-.32
65t	Handling/supporting	-.33
20t	Precision in non-powered hand tool usage	-.37
14t	Handling	-.38
42t	Holding	-.44
Factor C-18: Bonding, stitching, and fastening with portable powered tools		
27t	Bonding	.55
28t	Stitching	.47
32t	Scraping	.38
29t	Mechanical fastening	.30

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-19: Measuring/inspecting physical characteristics		
85t	Weight/volume	-.31
44a	Material and object handling	-.33
86t	Physical extent	-.37
91t	Physical characteristics	-.39
49a	Inspecting	-.43
48a	Measuring/counting	-.49
Factor C-20: Unnamed		
All loadings on this factor were less than .30		
Factor C-21: Applying heat and pressure to materials		
88t	Pressure/temperature	-.34
63t	Pressing	-.34
62t	Heat application	-.64
42a	Heat or pressure treating, except in forming	-.70
Factor C-22: Bonding, coating, and related activities using hand tools		
33a	Constructing/building	.30
3t	Cutting by blade	.30
15j	Art and craft materials	-.32
12t	Shaping	-.33
10t	Scraping	-.33
13j	Surface preparation and bonding substances	-.35
31a	Laying/covering	-.37
38a	Surface finishing	-.37
8t	Liquid application/coating	-.42
5t	Bonding/sealing	-.65
Factor C-23: Using foot-operated settings and controls		
80t	Foot-operated continuous settings	.68
82t	Foot-operated discrete controls	.53
78t	Foot-operated discrete settings	.52
79t	Hand-operated continuous settings	.33
Factor C-24: Unnamed		
33a	Constructing/building	.31
30t	Liquid application/coating	-.30

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-25: Working with animals		
2j	Animals and marine life	.59
51a	Handling people or animals	.33
Factor C-26: Abrading, shaping, cutting, and fusing with powered tools/equipment		
35t	Grinding	.65
24t	Cutting by abrasion	.54
31t	Abrading/polishing	.48
25t	Cutting by heat	.45
26t	Fusion	.43
41t	Precision in portable powered tool/equipment usage	.43
34t	Shaping	.41
33t	Perforating/boring	.35
Factor C-27: Sawing and shaping with powered and non-powered tools		
21t	Cutting by sawing	.36
34t	Shaping	.34
34j	Equipment/systems, n.e.d.	.31
1t	Cutting by sawing	.30
Factor C-28: Testing and repairing electrical/electronic equipment		
46a	Precision working	-.37
26t	Fusion	-.39
41a	Electrically treating	-.41
50a	Testing	-.44
32j	Electrical/electronic equipment and components	-.48
23j	Electrical and electronic parts and components	-.51
87t	Measurement devices: electrical	-.67
Factor C-29: General assembling activities		
22j	Mechanical parts	.52
24j	Screws, non-electric wire, and wire products	.49
34a	Assembling	.49
29t	Mechanical fastening	.43
23j	Electrical and electronic parts and components	.32
6t	Mechanical fastening	.31
25j	Miscellaneous metal parts, n.e.d.	.30

Table 7 (continued)

Work Factor		Rotated Loading[a]
Factor C-30: Routine cleaning and object handling activities		
43a	Cleaning	.64
15t	Cleaning with non-powered hand tools	.59
44a	Material and object handling	.40

[a] Work elements with loadings less than .30 were omitted.

Factor C-7: Fiber/thread working--physical work activities performed in the use of stationary stitching, knitting, and weaving machines and related hand tools. Examples of fiber/thread working jobs include: seamstress, tailor, circular knitter, sewing machine operator, dress pattern maker, furniture upholsterer, and weaver.

Factor C-8: Driving/operating vehicles and mechanized equipment--physical work activities involved in driving and operating medium and light highway vehicles and mechanized equipment such as bulldozers, cranes, and road graders. Examples of driving/operating jobs include: gasoline truck operator, heavy equipment operator, power shovel operator, fork-lift truck operator, chauffeur, and log stacker.

Factor C-9: Surface finishing--physical work activities in finishing surfaces using hand tools, portable powered tools, and stationary equipment. Examples of jobs with high scores on this factor include: ludlow-machine operator, metallurgical technician, cabinet maker, jewelry polisher, painter, and sculptor.

Factor C-10: Use of scientific and measuring devices/instruments--physical work activities involved in the operation of navigational, scientific, and measuring instruments and devices. Examples of jobs requiring the use of scientific and measuring instruments include: bio-instrumentation technician, airline pilot first officer, fishing vessel captain, thermodynamics engineer, physicist, and medical technologist.

Factor C-11: Operating material-joining equipment--physical work activities involved in the operation of material-joining equipment used in bonding, fusing, and fastening metal, rubber, plastic, and related materials and parts. Examples of relevant jobs include: blown plastic container machine operator, pipe-making welder, small product assembler, sealing machine operator, V-belt wrapper, and diesel mechanic.

Factor C-12: Tending/feeding/offbearing stationary machines--physical work activities required in the tending, feeding, or offbearing of stationary machines and material conveyors. Examples of jobs with high scores on this factor include: solid propellant processor, twister tender, cut-off sawyer, and stereotyper.

Factor C-13: Material forming--physical work activities involved in shaping materials through utilization of their plastic or molten properties or their reaction to pressure, as in casting, molding, rolling, extruding, forging, bending, modeling, etc.; involves the use of tools and stationary machines/equipment. Examples of jobs with high scores on this factor include: molding machine tender, glass forming machine upkeep man, foundry bench molder, sculptor, wire drawer, and record press tender.

Factor C-14: Use and handling of sporting equipment--physical work activities involving the use and handling of sporting equipment including relevant aspects of such activities as instructing, demonstrating, selling, evaluating, and repairing. Examples of jobs with high scores on this factor include: physical education instructor, sporting equipment salesman, fish and game warden, recreation director, and camp counselor.

Factor C-15: Processing food materials--physical work activities involved in cutting, mixing, and other processing of foods using hand tools, portable powered tools, and stationary machines. Examples of relevant jobs include: meat cutter, chef, cook, food service worker, school lunch supervisor, seasoning mixer, and butcher.

Factor C-16: Working on the interiors and exteriors of buildings--physical work activities involved in working on the interiors and exteriors of buildings and related structures. Examples of relevant jobs include: painter, carpenter, bricklayer, watchman, carpet mechanic, exterminator, and building custodian.

Factor C-17: Use of handling, holding, and supporting devices--physical work activities performed during the use of holding, handling, and supporting tools and equipment. Examples of jobs requiring handling, holding, and supporting activities include: furniture upholsterer, foundry bench molder, millwright, module assembler, and farm equipment mechanic.

Factor C-18: Bonding, stitching, and fastening with portable powered tools--physical work activities performed while bonding, stitching, or fastening a variety of materials using portable powered tools and equipment. Examples of jobs with high scores on this factor include: fitter, bench carpenter, cheese weigher and labeler, hosiery mender, sewing machine repairman, industrial arts teacher, and diesel mechanic.

Factor C-19: Measuring/inspecting physical characteristics--physical work activities performed in measuring and inspecting the physical extent or characteristics of objects, materials, and goods.

Examples of jobs requiring measuring and inspecting include: industrial waste inspector, quality control worker, laboratory technician, assemblies inspector, boring-mill operator, and naval architect.

Factor C-20: Unnamed. Since all loadings on this factor were less than .30, no attempt was made to interpret it.

Factor C-21: Applying heat and pressure to materials--physical work activities involving the use of stationary heat or pressure application equipment with a variety of materials such as cloth, food, and chemicals. Examples of jobs requiring the application of heat and pressure include: dry cleaning presser, baker, wood treating engineer, process equipment operator, cook, and tumbler drier tender.

Factor C-22: Bonding, coating, and related activities using hand tools--physical work activities involved in bonding, sealing, coating, and covering the surfaces of a variety of materials using hand tools. Examples of jobs with high scores on this factor include: carpenter, fitter, carpet mechanic, painter, sculptor, and insulation worker.

Factor C-23: Using foot operated settings and controls--physical work activities performed in using foot operated continuous and discrete settings and controls. Examples of jobs involving this factor include: airplane captain, gasoline truck driver, dry cleaning presser, office girl, and power plant operator.

Factor C-24: Unnamed. This could not be interpreted. Only two elements mark the factor, and their loadings have opposite signs.

Factor C-25: Working with animals--physical work activities involved in handling and dealing with animals. Examples of jobs requiring working with animals include: hatchery assistant, livestock farm hand, farm foreman, fish and game warden, pony ride assistant, and biological tester.

Factor C-26: Abrading, shaping, cutting, and fusing with powered tools/equipment--physical work activities involved in the use of portable powered tools for abrading, shaping, cutting, and fusing materials, especially metal. Examples of jobs with high scores on this factor include: dentist, factory maintenance man, welder, metal fabricator, metallurgical technician, and automobile body repairman.

Factor C-27: Sawing and shaping with powered and non-powered tools--physical work activities involving the use of powered and non-powered tools to saw or shape a variety of materials. Examples of jobs with high scores on this factor include: factory maintenance man, carpenter, pipe fitter, orchard foreman, dentist, and electrician helper.

Factor C-28: Testing and repariing electrical/electronic equipment--physical work activities involved in testing and repairing electrical/electronic equipment and devices. Examples of jobs for which this factor is relevant include: bio-instrumentation technician, radio mechanic, factory maintenance man, electrician, electronics technician, and electronics assembler.

Factor C-29: General assembling activities--physical work activities involved in assembling a variety of devices and products. Examples of jobs with high scores on this factor include: powered lawn mower assembler, assembler of small products, electronics assembler, factory maintenance man, metal furniture assembler, and bench carpenter.

Factor C-30: Routine cleaning and object handling activities--physical work activities requiring the use of hand tools, materials, and equipment to clean buildings, equipment, utensils, and related objects; also arranging, placing, or sorting objects and materials. Examples of relevant jobs include: dietary aide, housekeeper, porter, overhead cleaner, tray-line worker, dishwashing machine operator, and assembler of small products.

General Physical Requirements Dimensions

The factor analysis of the 22 work elements in the General Physical Requirements section of the OAI produced nine factors which accounted for 58.4 percent of the total variance. Table 8 presents the salient factor loadings; Appendix G contains the complete factor matrix. The nine General Physical Requirements factors are described briefly in the following paragraphs.

Factor K-1: Arm, hand, and finger coordination and dexterity--physical work activities requiring manual and finger dexterity, steadiness, and eye-hand coordination. Examples of jobs involving this factor include: production mechanic, die cutter, hosiery mender, small products assembler, gemologist, and wires transfer clerk.

Factor K-2: Dynamic strength/endurance--physical work activities requiring endurance and dynamic (or repetitive) strength. Examples of jobs requiring this factor include: punch press operator, life guard, ice man, fishing vessel first mate, and shipfitter.

Factor K-3: Standing versus sitting--physical work activities requiring standing/walking versus those requiring sitting. Examples of jobs requiring standing/walking include: maintenance superintendent, envelope machine set-up man, insulation worker, bakery sales clerk, and utility pole inspector. Examples of jobs requiring sitting include: engine assembler, jewelry stone setter, assistant manager, bookkeeper, and airline pilot.

Table 8

Salient Loadings of OAI Work Elements on Nine General Physical Requirements Factors

Work Factor[a]	Rotated Loading[b]
Factor K-1: Arm, hand, and finger coordination and dexterity	
4a Finger dexterity	.77
5a Manual dexterity	.71
1a Eye-hand coordination	.69
6a Arm-hand steadiness	.64
2a Control precision	.39
8a Multilimb coordination	.31
18a Finger/hand/arm strength	.30
Factor K-2: Dynamic strength/endurance	
20a Explosive strength	-.54
21a Endurance/stamina	-.63
22a Dynamic strength	-.77
Factor K-3: Standing versus sitting	
14a Standing	.80
11a Walking	.35
15a Sitting	-.74
Factor K-4; Balance and body coordination	
7a Reaction time	-.47
8a Multilimb coordination	-.54
9a Balance	-.63
10a General body coordination	-.72
Factor K-5: Running and/or lying	
17a Lying	-.56
12a Running	-.72
Factor K-6: Tracking	
3a Tracking	.70
2a Control precision	.57
7a Reaction time	.54
8a Multilimb coordination	.44

Table 8 (continued)

Work Factor[a]		Rotated Loading[b]
Factor K-7:	**General body and arm/hand strength**	
19a	General body strength	.71
18a	Finger/hand/arm strength	.52
16a	Kneeling/stooping/crawling	.33
20a	Explosive strength	.31
Factor K-8:	**Climbing/kneeling/stooping/crawling**	
13a	Climbing	.57
9a	Balance	.44
16a	Kneeling/stooping/crawling	.40
Factor K-9:	**Control precision**	
2a	Control precision	-.39

[a] The factors in this section have been assigned a "K" code (instead of "D") so that the remaining sections would have the same letter codes as in the previous factor analytic studies (Riccobono and Cunningham, 1971a, 1971b). The General Physical Requirements section was factor analyzed separately in the previous studies.

[b] Work elements with loadings less than .30 were omitted.

Factor K-4: Balance and body coordination--physical work activities requiring multilimb and body coordination and balance. Examples of jobs for which this factor is relevant include: outboard motor assembler, timber agent, brick sorter, physical education instructor, weaver, and social director.

Factor K-5: Running and/or lying--physical work activities requiring running and/or lying. Examples of jobs requiring running and/or lying include: furniture upholsterer, doffer, gas appliance serviceman, maintenance man, and explosive powder-line repairman.

Factor K-6: Tracking--physical work activities requiring intermittent or continuous adjustment to a moving target or changing course and highly controlled arm/hand or leg/foot movements in adjusting control mechanisms of vehicles and mechanized equipment. Examples of jobs with high scores on this factor include: airplane pilot, heavy equipment operator, chauffeur, crame operator, and panel board operator.

Factor K-7: General body and arm/hand strength--physical work activities requiring the exertion of considerable force by the body, arms, hands, and fingers. Examples of jobs with high scores on this factor include: groundskeeper, maintenance mechanic, boiler maker, metal furniture assembler, and groceryman.

Factor K-8: Climbing/kneeling/stooping/crawling--physical work activities requiring climbing, kneeling, stooping, and crawling. Examples of jobs requiring this factor include: maintenance superintendent, arc welder, overhead cleaner, shipfitter, and painter.

Factor K-9: Control precision--making fine, highly controlled arm-hand or leg-foot movements. Examples of jobs with high scores on this factor include: electronics assembler, gemologist, polisher, clothes designer, and make-up specialist.

Dimensions of Representational Work Behavior

The factor analysis of the 39 work elements in the Representational Work Behavior section of the OAI produced 12 factors accounting for 62.7 percent of the total variance. The salient factor loadings are presented in Table 9, and the complete factor matrix is contained in Appendix G. The 12 Representational Work Behavior factors are described below.

Factor D-1: Verbal communication: speaking and writing--representational activities differentiated by the level of difficulty and skill required of the speaker or writer. Examples of jobs involving this factor include: obstetrical consultant, psychiatrist, unemployment insurance hearing officer, principal, columnist, and occupational therapist.

Factor D-2: Clerical activities--representational activities involving comparing, copying, or classifying data and, to a lesser extent, compiling and calculating. Examples of jobs requiring clerical activities include: checker, assistant registrar, night auditor, secretary, assistant manager, correspondence clerk, and tabulating machine operator.

Factor D-3: Drafting and drawing activities--representational activities involving the use of drafting, layout, and drawing equipment. Examples of jobs involving drafting and drawing include: civil engineering draftsman, nuclear engineer, naval architect, furniture designer, tool designer, layout artist, and jewelry designer.

Factor D-4: Electronic data processing activities--representational activities involving the use of output from computer and related data processing equipment and the operation of such equipment either through direct physical control or directly through writing computer programs. Examples of jobs involving electronic data processing include: data systems manager, data processing technician, programming instructor, digital computer operator, and computer programmer.

Table 9

Salient Loadings of OAI Work Elements on 12 Representational Work Behavior Factors

	Work Factor	Rotated Loading[a]
Factor D-1:	**Verbal communication: speaking and writing**	
35r	Calculating/computing	-.31
26r	Communicates with numbers	-.32
19r	Formal, grammatically correct English	-.34
37r	Compiling	-.37
36r	Calculating/computing	-.38
1r	Writing devices	-.43
7r	Voice transmission and storage devices	-.44
27r	Complexity of numerical information communicated	-.47
39r	Synthesizing	-.49
38r	Analyzing	-.50
14r	Writing	-.52
15r	Writing: level of difficulty	-.62
30r	Personalness of subject matter	-.70
31r	Formality or structure of communicative interaction	-.71
18r	Ordinary conversational English	-.74
28r	Communication ratio	-.77
29r	Communication precision	-.79
16r	Speaking	-.82
17r	Speaking: level or skill of difficulty	-.85
Factor D-2:	**Clerical activities**	
34r	Classifying/categorizing	.78
33r	Copying/recording	.75
32r	Comparing/checking	.74
37r	Compiling	.55
14r	Writing	.47
1r	Writing devices	.46
26r	Communicates with numbers	.46
35r	Calculating/computing	.42
3r	Keyboard devices	.42
Factor D-3:	**Drafting and drawing**	
20r	Technical terms	-.31
9r	Hand computing devices	-.39
25r	Communicates by drawing	-.79
2r	Drawing devices	-.87

Table 9 (continued)

Work Factor		Rotated Loading[a]
Factor D-4: Electronic data processing		
12r	Uses computer programs which were written by others	.88
11r	Data-card processing devices	.76
13r	Writes computer programs	.51
Factor D-5: Communication by visual signals and auditory codes		
22r	Signals by visual means	-.54
24r	Communicates with auditory codes	-.57
5r	Visual signaling devices	-.66
Factor D-6: Using visual and audio-visual equipment		
4r	Still picture devices	.61
8r	Audio-visual transmission and storage devices	.49
6r	Office reproducing devices	.35
Factor D-7: Using written codes		
20r	Technical terms	-.33
23r	Communicates with special written codes	-.53
Factor D-8: Using keyboard and other office equipment		
3r	Keyboard devices	.63
6r	Office reproducing devices	.43
10r	Mechanical computing devices	.41
Factor D-9: Performing numerical operations		
35r	Calculating/computing	.71
36r	Calculating/computing	.63
27r	Complexity of numerical information communicated	.56
10r	Mechanical computing devices	.54
26r	Communicates with numbers	.49
9r	Hand computing devices	.38
38r	Analyzing	.30
Factor D-10: Analyzing and synthesizing information		
15r	Writing: level of difficulty	-.34
19r	Formal, grammatically correct English	-.36
20r	Technical terms	-.41

Table 9 (continued)

Work Factor	Rotated Loading[a]
Factor D-10 (continued)	
38r Analyzing	-.58
39r Synthesizing	-.58
Factor D-11: Recording information in writing	
1r Writing devices	-.45
14r Writing	-.56
Factor D-12: Using voice transmission devices	
7r Voice transmission and storage devices	.50
24r Communicates with auditory codes	.30

[a] Work elements with loadings less than .30 were omitted.

Factor D-5: Communication by visual signals and auditory codes--representational activities performed through hand signals or auditory codes. Examples of jobs for which this factor is relevant include: fishing vessel captain, airline pilot, signal operator, radio operator, and dispatcher.

Factor D-6: Using visual and audio-visual equipment--representational activities involving the use of visual and audio-visual equipment. Examples of jobs for which this factor is relevant include: programming instructor, printing stripper, medical records librarian, columnist, and language teacher.

Factor D-7: Using written codes--representational activities requiring the use of special written codes, notations, or symbols. Examples of jobs with high scores on this factor include: co-pilot, programming instructor, wires transfer clerk, pharmacist, and telegrapher.

Factor D-8: Using keyboard and other office equipment--representational activities requiring the use of keyboard and other office equipment, such as reproducing machines. Examples of jobs with high scores on this factor include: office girl, head teller, chief time keeper, columnist, bookkeeper, and stenographer.

Factor D-9: Performing numerical operations--activities involving numerical computation and communication. The activities are differentiated by the complexity of the numerical information and operations involved. Examples of jobs with high scores on this factor include: computer programming instructor, nuclear engineer, analytical engineer, physicist, and data processing technician.

Factor D-10: Analyzing and synthesizing information--representational activities requiring the careful examination and breaking down of information into basic components and the integration of information from various sources in order to produce new information such as plans, theories, literary creations, and explanations. Examples of jobs with high scores on analyzing and synthesizing include: college faculty member, technical reporting analyst, systems planning manager, analytical engineer, and sociologist.

Factor D-11: Recording information in writing--representational activities requiring the routine recording of information such as weight of trucks, number of packages, identification numbers of rail cars, etc. Examples of jobs marking this factor include: weight station operator, scaleman, rail car checker, weight checker, and publications engineer.

Factor D-12: Using voice transmission devices--representational activities requiring the use of voice transmission devices such as two-way radios and telephones. Examples of jobs with high scores on this factor include: radio operator, dispatcher, airline pilot, telegrapher, and telephone operator.

Dimensions of Interpersonal Work Behavior

The factor analysis of 32 work elements in the Interpersonal Work Behavior section of the OAI yielded 11 factors which accounted for 57.3 percent of the total variance. Table 10 presents the salient factor loadings fop the work elements, and Appendix G contains the complete factor matrix. The 11 Interpersonal Work Behavior factors are described briefly in the following paragraphs.

Factor E-1: Organizing and supervising the work of others--In addition to organizing and supervising, this factor includes personal actions, evaluating, disciplining, and some instructing. Examples of jobs with high scores on this factor include: farm foreman, kitchen supervisor, school principal, head teller, logging manager, and executive art director.

Factor E-2: Resolving conflicts--resolving conflicts among workers, supervisors, clients, customers, and others through arbitrating, mediating, negotiating, pacifying, advising, and related activities. Examples of jobs requiring conflict resolution include: claims asjuster, credit manager, senior collector, principal, unemployment hearing officer, corporation lawyer, care worker, and production foreman.

Table 10

Salient Loadings of OAI Work Elements on 11 Interpersonal Work Behavior Factors

Work Factor		Rotated Loading[a]
Factor E-1:	Organizing and supervising the work of others	
9p	Organizing	.89
27p	Subordinates	.87
8p	Personnel actions	.85
7p	Evaluating	.85
10p	Disciplining	.81
5p	Close supervision	.78
6p	General supervision	.66
15p	Teaching/instructing	.35
21p	Pacifying/placating	.30
Factor E-2:	Resolving conflicts	
18p	Arbitrating	.72
22p	Mediating	.70
19p	Negotiating	.59
21p	Pacifying/placating	.45
20p	Debating/discussing	.43
16p	Advising/counseling	.33
Factor E-3:	Serving/assisting	
30p	Customers	.73
2p	Serving/catering	.68
31p	General public	.47
11p	Giving information to others	.44
Factor E-4:	Being supervised	
25p	Superiors	.68
4p	Surveillance received	.65
3p	Directions received	.56
26p	Peers	.34
Factor E-5:	Instructing	
32p	Students	.72
15p	Teaching/instructing	.71
13p	Demonstrating	.35

Table 10 (continued)

Work Factor		Rotated Loading[a]
Factor E-6: Treating		
28p	Clients or patients	.70
17p	Treating	.60
Factor E-7: Obtaining and giving information		
16p	Advising/counseling	-.31
29p	Consultants or advisors	-.37
11p	Giving information to others	-.63
12p	Obtaining information from others	-.72
Factor E-8: Persuading		
14p	Persuading	.77
13p	Demonstrating	.64
30p	Customers	.39
Factor E-9: Entertaining/socializing		
23p	Diverting/entertaining	.64
24p	Socializing	.55
Factor E-10: Assisting superiors		
1p	Assisting	-.43
Factor E-11: Unnamed		
All rotated loadings on this factor were less than .30		

[a] Work elements with loadings less than .30 were omitted.

Factor E-3: Serving/assisting--serving and attending to the immediate needs of people. Examples of jobs involving serving include: recreation director, bank teller, hotel clerk, skycap, wine steward, passenger conductor, and waiter.

Factor E-4: Being supervised--interpersonal activities involved in following the directions of supervisors while under their surveillance. Examples of jobs in which the incumbent is being supervised includes: secretary, ram press operator, kitchen runner, surgical technician, bus boy, and chief time keeper.

Factor E-5: Instructing--instructing and teaching of students, workers, athletes, and others. Examples of jobs involving instructing include: computer operations instructor, physical education teacher, college faculty member, social director, and director of religious educations.

Factor E-6: Treating--treating medical patients, counselees, and related clients. Examples of jobs involving treating include: physical therapist, art therapist, general practitioner, psychiatrist, employment counselor, occupational therapist, and surgical technician.

Factor E-7: Obtaining and giving information--obtaining information from or giving information to others. Examples of jobs with high scores on this factor include: unemployment hearing officer, legislative liaison, naval architect, and cfedit manager.

Factor E-8: Persuading--convincing others to change their opinions or take actions through persuasion and demonstration, especially in selling products or services. Examples of jobs for which this factor is relevant include: business forms salesman, music store manager, home service representative, and assistant store manager.

Factor E-9: Entertaining/socializing--interpersonal activities involving diverting, entertaining, or socializing. Examples of jobs requiring entertaining/socializing include: recreation director, catering manager, executive vice president of the Chamber of Commerce, tour guide, and music director.

Factor E-10: Assisting superiors--providing assistance to a superior in performing a task. Examples of jobs requiring assisting include: radiological technologist, wine steward, unemployment hearing officer, farm foreman, and senior clerk.

Factor E-11: Unnamed. This factor was not interpreted because there were no salient loadings (i.e., loadings > .30).

Work Goals Dimensions

The factor analysis of the 112 work elements in the Work Goals section of the OAI yielded 26 factors which accounted for 55.9 percent of the total variance. Table 11 presents the salient loadings for the work elements, and Appendix G contains the complete factor matrix. The 26 Work Goals factors are described briefly in the following paragraphs.

Factor F-1: Bookkeeping objectives. This factor is defined by a variety of elements dealing with numerical and symbolic objectives, particularly those related to business data. Examples of jobs having bookkeeping objectives include: billing clerk, customer relations man, store room clerk, night auditor, and assistant registrar.

Table 11

Salient Loadings of OAI Work Elements on 26 Work Goals Factors

Work Factor		Rotated Loading[a]
Factor F-1: Bookkeeping objectives		
81g	Recorded or transcribed numerical data	.79
79g	Solutions to standard arithmetic problems	.72
82g	Numerical data displayed	.72
94g	Balanced, verified, or updated business/organizational records	.69
72g	Routine written output	.65
83g	Numerical information orally communicated	.58
88g	Semantic/symbolic material verified	.58
76g	Written material categorized	.50
77g	Oral information communicated	.40
89g	Completed sales or business/organizational transactions	.40
99g	Written business/organizational communication	.37
Factor F-2: Electrical/electronic function objectives		
13g	Causes of electrical/electronic malfunction located or identified	.87
14g	Electrical/electronic functioning maintained	.86
15g	Electrical/electronic functioning restored	.85
12g	Substandard conditions of electrical/electronic devices detected	.80
18g	Satisfactory output from electrical/electronic devices	.75
17g	Electrical/electronic devices regulated, adjusted, or controlled	.73
16g	Electrical/electronic devices installed or assembled	.67
19g	Electrical/electronic schematics and/or diagrams	.52
21g	Written communication of electrical/electronic information	.41
20g	Electrical/electronic innovations or plans	.36
Factor F-3: Botanical objectives		
41g	Plant life maintained	.90
40g	Soil prepared and/or plants, shrubs, or trees planted	.90
42g	Plant products harvested or extracted	.77
43g	Innovations or plans related to plant life	.73
44g	Written communications concerning plant life	.67
47g	Satisfactory condition of earth/terrain features maintained	.65
46g	Terrain or earth features modified	.55

Table 11 (continued)

Work Factor		Rotated Loading[a]
Factor F-4: Biological/health objectives		
64g	Health problems relieved or eliminated	.82
65g	Potential health problems prevented or mitigated	.82
70g	Written biological/health communications completed	.80
63g	Causes or potential causes of health problems identified	.78
69g	Biological/health measurements taken	.72
68g	Biological/health tests performed	.63
71g	Biological/health innovations or plans	.54
66g	Medically related service tasks completed	.38
Factor F-5: Technical planning/drawing		
10g	Mechanical plans or innovations	.86
9g	Mechanical drawings	.81
39g	Drawings or diagrams of constructed, modified, arranged objects/materials	.77
11g	Written communication of mechanical information	.76
36g	Innovations or plans in assembly, fabrication, or material modification	.68
35g	Innovations or plans in construction, installation, or spatial arrangement	.63
84g	Completed diagrams, charts, and maps	.60
37g	Written communications pertaining to construction or spatial arrangement	.58
38g	Written communications pertaining to material/object modification	.55
80g	Solutions to advanced mathematical problems	.54
19g	Electrical/electronic schematics and/or diagrams	.40
21g	Written communication of electrical/electronic information	.40
73g	Non-standard or innovative written output	.38
20g	Electrical/electronic innovation or plans	.36
Factor F-6: Visual aesthetics objectives		
61g	Completed art/decorative plans or designs	.76
57g	Aesthetically arranged objects or things	.69
62g	Art/decorative information communicated	.66
58g	Original art objects	.41
91g	Advertising material produced, displayed, or disseminated	.34
33g	Spatially arranged objects	.32

Table 11 (continued)

Work Factor		Rotated Loading[a]
Factor F-7: Mechanical function objectives		
2g	Causes of mechanical malfunction located or identified	.88
4g	Proper mechanical functioning restored	.85
3g	Mechanical functioning maintained	.81
1g	Substandard conditions of mechanical devices detected	.76
6g	Satisfactory output from mechanical devices	.63
7g	Properly regulated or controlled mechanical devices	.58
5g	Mechanical devices installed or assembled	.56
Factor F-8: Human behavior objectives		
105g	Improved adjustment or adaptation of others	.71
102g	Others' knowledge improved or assessed	.70
109g	Written communication pertaining to people	.63
101g	Physical competence of others improved or assessed	.62
108g	Innovations or plans pertaining to people	.61
104g	Others' compliance with directions, rules, or laws insured or monitored	.49
103g	Attitude, opinion, or belief change in others	.44
92g	Employee relations accomplished	.39
77g	Oral information communicated	.38
107g	Enjoyment, satisfaction, or mood change of others	.37
Factor F-9: Environmental maintenance and planning objectives		
50g	Maintenance of satisfactory water conditions	.80
53g	Innovations or plans concerning water, atmospheric, or astronomical events	.79
54g	Written communications pertaining to water, atmospheric, astronomical events	.78
55g	Environmental charts, diagrams, or maps produced	.38
Factor F-10: Editing, proofing, and clerical objectives		
75g	Written material edited or checked for composition and format	.68
74g	Written material reviewed or edited for content	.57
78g	Verbal material transcribed	.49
76g	Written material categorized	.45
87g	Reproduced semantic/symbolic material	.45
88g	Semantic/symbolic material verified	.42
73g	Non-standard or innovative written output	.40
85g	Information encoded into written symbols or codes	.37

Table 11 (continued)

	Work Factor	Rotated Loading[a]
Factor F-11:	Meteorological and astronomical objectives	
52g	Astronomical events predicted, observed, or recorded	.78
51g	Atmospheric conditions monitored or forecasted	.77
86g	Information transmitted by non-written codes and signals	.50
56g	Environmental emergencies detected, prepared for, or dealt with	.44
Factor F-12:	Objectives related to animals	
111g	Performance of animals improved, assessed, or controlled	.80
110g	Improved state of grooming or appearance of animals	.59
112g	Written communications pertaining to animals	.47
Factor F-13:	Organizational performance objectives	
97g	Organizational plans or innovations	.75
95g	Satisfactory index of organizational performance attained	.62
96g	Business/organizational data gathered, compiled, or displayed	.58
99g	Written business/organizational communication	.54
92g	Employee relations accomplishments	.51
98g	Contracts or other legal documents drawn up	.35
94g	Balanced, verified, or updated business/organizational records	.30
Factor F-14:	Material treatment/modification objectives	
6g	Satisfactory output from mechanical devices	-.31
7g	Properly regulated or controlled mechanical devices	-.32
28g	Materials/substances modified by miscellaneous mechanical actions	-.39
32g	Satisfactory condition or state of modified objects	-.43
29g	Treated materials or substances	-.53
Factor F-15:	Performing arts objectives	
59g	Successfully completed performance	.76
60g	Innovations in performing arts	.74

Table 11 (continued)

Work Factor		Rotated Loading[a]
Factor F-16: Structural objectives		
24g	Installed or attahced objects	-.32
25g	Shaped objects	-.32
27g	Finished or prepared surfaces	-.40
30g	Satisfactory condition of structures and other constructed objects	-.46
22g	Completed structures and other constructed objects	-.60
Factor F-17: Terrain/earth planning and communication objectives		
49g	Written communications concerning terrain/earth features	.82
48g	Innovations or plans concerning terrain/earth features	.77
55g	Environmental charts, diagrams, or maps produced	.42
43g	Innovations or plans related to plant life	.32
44g	Written communications concerning plant life	.32
Factor F-18: Sales and public relations objectives		
93g	Public relations accomplishments	.66
89g	Completed sales or business/organizational transactions	.62
107g	Enjoyment, satisfaction, or mood change of others	.50
91g	Advertising material produced, displayed, or disseminated	.49
83g	Numerical information orally communicated	.43
103g	Attitude, opinion, or belief change in others	.43
98g	Contracts and other legal documents drawn up	.40
77g	Oral information communicated	.32
Factor F-19: Material handling/arrangement objectives		
34g	Properly located or placed objects	.69
90g	Merchandise shelved, packaged, demonstrated, or otherwise handled	.54
33g	Spatially arranged objects	.51
Factor F-20: General biological versus health service objectives		
71g	Biological/health innovations or plans	.37
68g	Biological/health tests performed	.34
66g	Medically related service tasks completed	-.37

Table 11 (continued)

Work Factor		Rotated Loading[a]
Factor F-21:	**Electrical/electronic planning and communication objectives**	
20g	Electrical/electronic innovations or plans	.67
21g	Written communication of electrical/electronic information	.61
19g	Electrical/electronic schematics and/or diagrams	.42
Factor F-22:	**Assembly/fabrication objectives**	
16g	Electrical/electronic devices installed or assembled	-.30
31g	Satisfactory condition of assembled or fabricated objects	-.44
23g	Assembled or fabricated objects	-.68
Factor F-23:	**Terrain/earth modification and maintenance objectives**	
46g	Terrain or earth features modified	.60
47g	Satisfactory condition of earth/terrain features maintained	.55
45g	Raw geological materials extracted	.31
Factor F-24:	**Biological/health inspection objectives**	
67g	Biological/health inspections performed	.50
Factor F-25:	**Oral communication objectives**	
77g	Oral information communicated	.34
Factor F-26:	**Structural planning and communication objectives**	
35g	Innovations or plans in construction, installation, or spatial arrangement of objects	.32
37g	Written communications pertaining to construction	.30

[a] Work elements with loadings less than .30 were omitted.

Factor F-2: Electrical/electronic function objectives--objectives related to restoration or maintenance of electrical/electronic functioning, with a lesser emphasis on installation, assembly, and operation. Examples of jobs for which this factor is relevant include: radio mechanic, electrical assemblies foreman, electrician, substation operator, and factory maintenance man.

Factor F-3: Botanical objectives--objectives related to the nurture, maintenance, and harvesting of plant life and to planning and communication pertaining to those objectives. Examples of jobs having botanical objectives include: orchard foreman, arboreta director, vegetable grower, operations forester, and air and water pollution control agriculturist.

Factor F-4: Biological/health objectives--objectives related to the prevention and alleviation of health problems and to related biological testing, measuring, planning, and writing activities. Examples of jobs having biological/health objectives include: obstetrical consultant, general practitioner, industrial nurse, dentist, psychiatrist, and veterinarian.

Factor F-5: Technical planning/drawing objectives--objectives related to plans, drawings, diagrams, and written communication dealing with such technical matters as mechanics, assembly/fabrication, construction, and electrical/electronic devices. Examples of jobs for which this factor is relevant include: naval architect, human factors specialist, manufacturing engineer, water distribution engineer, and numerical control tool programmer.

Factor F-6: Visual aesthetics objectives--objectives related to the creation of objects and materials that are aesthetically pleasing; includes creation or production, as well as planning and communication. Examples of jobs having visual aesthetics objectives include: lay-out artist, art teacher, display manager, cloth designer, sculptor, and art coordinator.

Factor F-7: Mechanical function objectives--objectives related to the maintenance and restoration of mechanical functioning, with a lesser emphasis on assembly, installation, and operation. Examples of jobs for which this factor is relevant include: packaging machine mechanic, aircraft engine mechanic, envelope machine set-up man, manufacturing engineer, and pipe layer.

Factor F-8: Human behavior objectives--objectives related to changing and assessing human behavior, including such variables as personal adjustment, knowledge, physical competence, compliance, attitudes and opinions, and satisfaction; involves planning and communication as well as direct contact with people. Examples of jobs with human behavior objectives include: social director, industrial arts teacher, occupational therapist, rehabilitation counselor, employment counselor, high school principal, and data processing director.

Factor F-9: Environmental maintenance and planning objectives--objectives related to the maintenance of satisfactory water and related environmental conditions. Examples of jobs having environmental maintenance objectives include: waterworks engineer, industrial waste consultant, hydrologist, environmental engineer, industrial waste inspector, and public health sanitarian.

Factor F-10: Editing, proofing, and clerical objectives--objectives related to the production of edited, checked, and transcribed written material; includes elements requiring some knowledge and formal verbal capability as well as elements requiring routine clerical capabilities. Examples of jobs involving this factor include: secretary, medical records librarian, columnist, medical secretary, and mark-up man.

Factor F-11: Meteorological and astronomical objectives--objectives related to the observation, monitoring, and prediction of meteorological and astronomical conditions/events and to relevant communications. Examples of jobs having meteorological and astronomical objectives include: fishing vessel captain, astronomer, fire lookout, farmer, and airport superintendent.

Factor F-12: Objectives related to animals--objectives related to the appearance and performance of animals and to relevant written communications. Examples of jobs for which this factor is relevant include: pony ride manager, dairy manager, groomer, hatchery assistant, and fish and game warden.

Factor F-13: Organizational performance objectives--objectives related to the improvement of organizational performance; includes plan development, performance assessment, data collection and compilation, and written communication. Examples of jobs having organizational performance objectives include: corporation president, YMCA social welfare administrator, chief telephone operator, and area development manager.

Factor F-14: Material treatment/modification objectives--objectives related to the treatment or modification of materials and substances and to the assurance that the prescribed outcomes of such treatment have been achieved. Examples of jobs having material treatment/modification objectives include: quality control worker, biologist, laboratory technician, polymerization foreman, baker, chief pharmacist, and pen and pencil plater.

Factor F-15: Performing arts objectives--objectives related to the production of aesthetically pleasing or entertaining events. Examples of jobs having performing arts objectives include: executive producer, music supervisor, instrumental musician, script writer, fashion show coordinator, and music director.

Factor F-16: Structural objectives--objectives related to the construction, shaping, or installation of structures and other objects, and to surface preparation/finishing. Examples of jobs having structural objectives include: maintenance carpenter helper, shipfitter, sculptor, forest engineer, dentist, and thermodynamics engineer.

Factor F-17: Terrain/earth planning and communication objectives--objectives related to plans and written communications concerning terrain/earth features, with some lesser emphasis on plant life. Examples of jobs for which this factor is relevant include: timber agent, recreation facilities designer, hydrologist, surveyor, and farmer.

Factor F-18: Sales and public relations objectives--objectives related to sales and the promotion of favorable public relations. Examples of jobs having sales and public relations objectives include: furniture salesman, catering manager, sales manager, traffic agent, and music director.

Factor F-19: Material handling/arrangement objectives--objectives related to the proper location, placement, or arrangement of objects. Examples of jobs having material handling/arrangement objectives include: magazine foreman, set packing order man, dietary aide, bakery sales clerk, art coordinator, and storeroom clerk.

Factor F-20: General biological versus health service objectives. This bipolar factor is marked at one end by objectives related to biological innovations and tests, and at the other end by a medical service element. Since no loadings exceeded a value of .40, the validity of the factor is questionable. Examples of jobs having general biological objectives include: biologist, laboratory technologist, microbiologist, and agriculturist. Examples of jobs having health service objectives include: dietary aide, nursing supervisor, physical therapist, and medical aide.

Factor F-21: Electrical/electronic planning and communication objectives--objectives related to plans, diagrams, and written communications pertaining to electrical/electronic devices and principles. Examples of jobs for which this factor is relevant include: electrical engineering associate, electrical engineer, physicist, electromechanical designer, and public utilities salesman.

Factor F-22: Assembly/fabrication objectives--objectives related to the assembly or fabrication of variety of objects and products. Examples of jobs having assembly or fabrication objectives include: assembler, module assembler, small products assembler, electronics engineer, electric motor assembler, and seamstress.

Factor F-23: Terrain/earth modification and maintenance objectives--objectives related to the modification and maintenance of terrain features, with some lesser emphasis on the extraction of raw geological materials. Examples of jobs involving this factor include: heavy equipment engineer, logging manager, power shovel operator, farmer, jackhammer operator, and water distribution designer.

Factor F-24: Biological/health inspection objectives--objectives related to the assurance that facilities, equipment, food, biological materials, etc., meet required health or quality standards. Since only one element marked this factor, its validity is questionable. Examples of jobs with biological/health inspection objectives include: biologist, industrial waste inspector, quality control pharmacist, nursing supervisor, and public health sanitarian.

Factor F-25: Oral communication objectives--the communication of information orally. Only one element marked this factor, and its loading was only .34; the validity of the factor is doubtful. Examples of jobs with oral communication objectives include: dispatcher, airplane pilot, survey worker, art coordinator, executive art director, and research wildlife biologist.

Factor F-26: Structural planning and communication objectives--objectives related to plans and written communications pertaining to construction and installation. Because of its low loadings, the validity of this factor is questionable. Examples of jobs involving this factor include: forest engineer, recreation facilities designer, building designer, civil engineering draftsman, and industrial engineer.

Dimensions of Work Context

The factor analysis of the 77 work elements in the Work Context section of the OAI produced 14 factors accounting for 49.6 percent of the total variance. The salient factor loadings for the work elements are presented in Table 12; the complete factor matrix is contained in Appendix G. The 14 Work Context factors are described briefly below.

Factor G-1: Incentives. This factor is marked by all but one of the OAI Incentive elements, ranging from incentives related to the basic existence needs to those related to self-actualization; the one incentive element without a salient loading on this factor (63c--Job structure) could be interpreted as a negative incentive. To the extent that this factor validly characterizes the incentive aspects of jobs, it could be said that in the world of work, good things tend to occur together. Three other work elements marking the factor deal with organizational, financial, and intangible responsibilities. Examples of jobs with high scores on this factor include: university extension director, obstetrical consultant, thermodynamics engineer, and arboreta director.

Factor G-2: Physical hazards and discomforts--mechanical, electrical, chemical, and related hazards, often accompanied by dirt, noise, and vibration. Examples of jobs involving physical hazards and discomforts include: orchard foreman, log stacker operator, arc welder, furnace operator, factory maintenance man, and boiler maker.

Table 12

Salient Loadings of OAI Work Elements on 14 Work Context Factors

Work Factor	Rotated Loading[a]
Factor G-1: Incentives	
22c Work clothes	.40
26c Work procedures	.39
30c Goals	.33
27c Timing and sequence	.30
53c Working jointly with others as part of a team where co-operation is necessary	-.30
41c Distractions or interruptions	-.39
65c Chance to help others	-.39
61c Job security	-.46
72c Job performance information	-.47
25c Business attire	-.49
62c Physical working conditions	-.50
71c Advancement	-.51
42c Novel situations	-.52
47c Financial or material consequences of errors	-.53
66c Social relationships	-.55
68c Outside recognition	-.67
49c Intangible consequences of errors	-.69
31c Task diversity	-.69
70c Authority	-.70
74c Creativity	-.72
46c Updating knowledges, techniques, and skills	-.72
64c Compensation	-.75
50c Organizational responsibility	-.76
76c Independence	-.77
69c Prestige	-.78
77c Personal development	-.80
73c Responsibility	-.84
75c Utilization of abilities	-.84
Factor G-2: Physical hazards and discomforts	
20c Overall hazard of the job	.80
48c Safety consequences of errors	.62
13c Mechanical hazards	.57
21c Safety apparel	.54
4c Dirty environment	.54
22c Work clothes	.47
16c Exposure to burns	.47
18c Toxic conditions	.44

Table 12 (continued)

	Work Factor	Rotated Loading[a]
Factor G-2 (continued)		
8c	Noise intensity	.40
6c	Vibration	.38
14c	Moving or falling objects	.38
17c	Electrical hazards	.33
7c	Uncomfortable body positions	.33
10c	High temperature	.32
25c	Business attire	-.39
62c	Physical working conditions	-.43
Factor G-3: Structured work situations		
31c	Task diversity	.30
72c	Job performance information	-.33
52c	Working individually where social interaction is possible	-.38
43c	Confinement to a specified work space	-.55
63c	Job structure	-.56
29c	Performance standards	-.61
28c	Speed	-.66
30c	Goals	-.67
27c	Timing and sequence	-.73
26c	Work procedures	-.73
Factor G-4: Variable versus consistent work schedules		
40c	Variable day-night hours	.84
36c	Changing shift work	.72
37c	Variable hours	.33
24c	Uniform	.30
35c	Consistent schedule	-.63
38c	Day hours	-.70
Factor G-5: Irregular versus regular work		
33c	Seasonal work	.59
34c	Irregular work	.54
37c	Variable hours	.35
1c	Inside-outside	.32
61c	Job security	-.43
32c	Steady work	-.91

Table 12 (continued)

Work Factor		Rotated Loading[a]
Factor G-6: Conflict situations		
54c	Working individually in a one-to-one relationship	.34
42c	Novel situations	-.31
56c	Moral value conflict	-.43
55c	Conflicting job demands	-.60
58c	Unpleasant social relationships	-.64
57c	Interpersonal conflict	-.67
Factor G-7: Extreme and changing temperature and humid/wet conditions		
12c	Sudden temperature changes	.72
10c	High temperature	.60
11c	Low temperature	.57
3c	Humid	.52
2c	Wet	.47
16c	Exposure to burns	.34
15c	High places	.33
Factor G-8: Social and civic obligations		
60c	Social obligations	.72
59c	Civic obligations	.68
Factor G-9: Rush situations		
23c	Casual apparel	-.33
42c	Novel situations	-.34
44c	Rush situations	-.52
Factor G-10: Unnamed		
25c	Business attire	.41
48c	Safety consequences of errors	-.31
Factor G-11: Working outdoors		
2c	Wet	-.30
6c	Vibrations	-.33
14c	Moving or falling objects	-.40
1c	Inside-outside	-.65
9c	Unpleasant weather conditions	-.68

Table 12 (continued)

Work Factor		Rotated Loading[a]
Factor G-12: Social service context		
65c	Chance to help others	.56
54c	Working individually in a one-to-one relationship	.43
66c	Social relationships	.41
Factor G-13: Working alone versus working among others		
51c	Working alone with little or no opportunity for social interaction	.47
52c	Working individually where social interaction is possible with others	-.31
Factor G-14: Authority over others		
70c	Authority	-.30

[a] Work elements with loadings less than .30 were omitted.

Factor G-3: Structured work situations--job situations in which various aspects of one's work are prescribed or restricted. Included among the restricted variables are: work procedures, timing and sequence, goals, speed, performance standards, and work location. Examples of structured jobs include: color film mounter, V-belt wrapper, tabulating equipment operator, thimble press operator, folding machine operator, and chauffeur.

Factor G-4: Variable versus consistent work schedules. This is a bipolar factor marked by variable hours and changing shift work at one end and daytime hours and a consist schedule on the other end. Examples of jobs with variable day-night schedules include: airplane captain, passenger car conductor, radiologist, airplane stewardess, tractor-trailer truck driver, surgical technician, and telegrapher. Examples of jobs with consistent daytime schedules include: grass removing machine tender, weight checker, cannery leadman, tractor driver, and gate receiver.

Factor G-5: Irregular versus regular work. This bipolar factor is marked at one end by seasonal and irregular work, versus steady work and job security at the other end. Examples of jobs involving irregular work include: fishing vessel captain, apple farmer, logging manager, pony ride attendant, and press box custodian. Examples of jobs offering regular work include: automotive engineer, portfolio investment analyst, nuclear engineer, housemother, employment counselor, and advertising director.

Factor G-6: Conflict situations. This factor is characterized by interpersonal conflict, unpleasant social relationships, and conflicting job demands. Examples of jobs in which this factor is involved include: credit manager, apprenticeship training representative, trading stamps salesman, utilities service inspector, claims adjuster, senior collector, and service manager.

Factor G-7: Extreme and changing temperature and humid/wet conditions. This factor is marked by sudden temperature changes, high temperature, low temperature, and humid and wet conditions. Examples of jobs with high scores on this factor include: construction superintendent, fishing vessel first mate, dietary aide, cook, fire fighter, farmer, and electric furnace operator.

Factor G-8: Social and civic obligations. Work duties often require participation in civic or social activities. Examples of jobs involving social/civic responsibilities include: public service director, social director, religious education director, school principal, columnist, and camp counselor.

Factor G-9: Rush situations--situations in which the incumbent must hurry in performing certain activities. Examples of jobs requiring rushing include: fishing vessel first mate, technical services supervisor, general foreman, substation operator, airplane captain, dispatcher, and farmer.

Factor G-10: Unnamed. This factor was not interpreted.

Factor G-11: Working outdoors. This factor is marked by outdoor conditions, including exposure to unpleasant weather and some hazard from moving or falling objects. Examples of jobs involving outdoor work include: power shovel operator, fishing vessel captain, farm hand, log scaler, and waterfront security officer.

Factor G-12: Social service context. This factor is marked by the chance to help others, the opportunity to establish social relationships, and working in one-to-one relationships. Examples of jobs involving this factor include: home-for-aged hostess, industrial arts teacher, modified diet cook, and director of religious education.

Factor G-13: Working alone versus working among others--working alone with little opportunity for social interaction, versus working where social interaction with others is possible. Examples of jobs allowing limited opportunity for social interaction include: fishing vessel captain, truck driver, watchman, farm hand, and photographer finisher. Examples of jobs offering the opportunity for social interaction include: production department foreman (aerospace), senior communications electrician, and porter I.

Factor G-14: Authority over others--opportunity to direct or control the activities of others by virtue of one's position. Examples of jobs in which the incumbent has authority over others include: farmer, principal, corporation president, and advertising director.

Results of the Higher-Order Factor Analyses

Appendix K contains the complete results of the higher-order factor analysis (i.e., the factor analysis of the 132 first-order factors) on the total sample of 1414 jobs. As described previously, separate higher-order factor analyses were also performed on two subsamples of 707 jobs each, and coefficients of congruence were computed between rotated factors from the two subsamples and between factors from each subsample and the total sample. The three complete matrices of congruence coefficients are shown in Appendix L. Table 13 presents the coefficients of congruence between factors from the two subsamples that were matched with the same factors from the total sample. Those coefficients between matched subsample factors estimate the stability of the factors from the total sample.

Table 13

Coefficients of Congruence for the 28 Rotated Higher-Order Factors

Factor	Cong. Coef.	Factor	Cong. Coef.	Factor	Cong. Coef.
H-1	.787	H-11	.761	H-21	.486
H-2	.910	H-12	.729	H-22	.769
H-3	.954	H-13	.895	H-23	.715
H-4	.950	H-14	.648	H-24	.755
H-5	.942	H-15	.755	H-25	.489
H-6	.910	H-16	.939	H-26	.444
H-7	.927	H-17	.848	H-27	.532
H-8	.901	H-18	.659	H-28	.384
H-9	.835	H-19	.824		
H-10	.907	H-20	.725		

Twenty-eight factors, accounting for 46.1 percent of the variance, were rotated in the higher-order analysis of the total sample. Table 14 presents the salient loadings. The interpretations of the higher-order factors are presented in the following paragraphs.

Dimension H-1: Human assistance, improvement, and assessment activities. This is a broad dimension involving various human behavior objectives (F-8), particularly those related to assistance, improvement and assessment. Also involved is information pertaining to people and human behavior (A-9), obtained both from direct contact with people and from indirect sources such as written and graphic materials. In addition, Dimension H-1 has a substantial loading on semantic thinking (B-1), including such elements as idea production and expression, plan ordering and elaboration, problem detection, deductive reasoning, and verbal comprehension and construction. Other first-order factors loading on Dimension H-1 are conflict context (G-6), resolving conflicts (E-2), and entertaining/socializing (F-9). Some examples of jobs with high scores on Dimension H-1 are social director; apprenticeship training representative; principal; case worker; manager, premium and commission accounting; and claims adjuster.

Dimension H-2: Sales, service, and public relations activities. This dimension involves sales and public relations objectives (F-18) as well as objectives related to the general affective states of others (e.g., satisfaction, mood, attitude, opinion--also in F-18). Consistent with those objectives are the substantial loadings of direct business/sales information (A-16) and serving/assisting activities (E-3). Among the first-order factors with smaller but salient loadings are social service context (G-12), persuading (E-8), and verbal communication (D-1). Some examples of jobs with substantial scores on Dimension H-2 include: director of recreation (hotel and restaurant); bartender; fitter, wigs; salesperson, sporting goods (retail trade, wholesale trade); modified diet cook; hotel clerk; and usher.

Dimension H-3: Routine semantic and symbolic activities: clerical activities. This dimension involves routine semantic and symbolic objectives and activities (B-4, D-2, F-10), including comparing/checking, copying/recording, classifying/categorizing, spelling, transcribing, routine writing, calculating, and routine editing/proofing. Also involved are the use of keyboard and other office equipment (D-8) and the obtaining and giving of information (E-7). Some examples of jobs involving Dimension H-3 include: personnel secretary I; office girl; stenographer and inventory clerk; correspondence clerk; medical secretary; columnist; mark-up man; and transcribing-machine operator.

Dimension H-4: Biological/health related activities. This dimension clearly represents biological and health related objectives and activities (C-3, E-6, F-4), with a strong emphasis on treatment reflected by such activities as applying medicines; examining; physical treatment (excluding surgery); surgical treatment; and the identification, prevention, and relief of health problems. Consistent with those activities is the involvement of biological/medical measures and tests;

Table 14

Salient Loadings of OAI First-Order Factors on 28 Higher-Order Factors

Higher-Order Factor		Rotated Loading[a]
Dimension H-1: Human assistance, improvement, and assessment activities		
A-9	Information related to people and human behavior	.69[c]
G-6	Conflict context	.60[c]
B-1	Semantic thinking	.59
F-8	Human behavior objectives	.55
E-2	Resolving conflicts	.52
F-18	Sales and public relations objectives	.36
E-9	Entertaining/socializing	.33
D-1	Verbal communication: speaking and writing	.32[c]
Dimension H-2: Sales, service, and public relations activities		
A-16	Direct business/sales information	.76
E-3	Serving/assisting	.74[c]
F-18	Sales and public relations objectives	.69[c]
G-12	Social service context	.42[c]
E-8	Persuading	.33[c]
D-1	Verbal communication: speaking and writing	.34
B-7	Behavioral perception	.33
Dimension H-3: Routine semantic and symbolic activities: clerical activities		
A-11	Structure and format of written information	.78
B-4	Routine symbolic and semantic information processing: clerical activities	.77
F-10	Editing, proofing, and clerical objectives	.76
D-2	Clerical activities	.60
D-8	Using keyboard and other office equipment	.44
K-3	Sitting versus standing	.33[b,c]
E-7	Obtaining and giving information	.33[c]
Dimension H-4: Biological/health-related activities		
A-3	Biological and health information	.92
F-4	Biological/health objectives	.90
C-3	Medical treatment	.89
E-6	Treating	.72

Table 14 (continued)

Higher-Order Factor		Rotated Loading[a]
Dimension H-5: Mechanical repair, maintenance, and operation		
F-7	Mechanical function objectives	.88
A-6	Information from machines	.83
C-4	Repair and maintenance of machines and equipment	.74
G-2	Physical hazards and discomforts	.41
Dimension H-6: Activities related to visual aesthetics		
A-5	Information related to visual aesthetics	.92
F-6	Visual aesthetics objectives	.81
B-5	Aesthetic/figural creativity	.70
Dimension H-7: Utilization and processing of numerical data		
A-2	Business-related numerical information	-.84
F-1	Bookkeeping objectives	-.74
D-9	Performing numerical operations	-.68
B-3	Numerical and symbolic thinking	-.43
G-1	Incentives	-.40[c]
D-2	Clerical activities	-.37
Dimension H-8: Botanical activities		
C-2	Earth working and care/harvesting of plant life	-.90
F-3	Botanical objectives	-.83
A-4	Environmental information	-.79
G-11	Working outdoors	-.39[c]
A-15	Indirect environmental information	.30[c]
Dimension H-9: Activities related to physical science and technology		
A-18	Physical science and technology information	.71[c]
F-14	Material treatment/modification objectives	.51
C-19	Measuring/inspecting physical characteristics	.47
C-5	Combining and separating chemicals and other substances and materials	.43[c]
D-7	Using written codes	.31
Dimension H-10: Electrical/electronic repair, maintenance, assembly, and operation		
F-2	Electrical/electronic function objectives	.89
A-1	Electrical and electronic information	.89

Table 14 (continued)

Higher-Order Factor		Rotated Loading[a]
C-28	Testing and repairing electrical/electronic equipment	.69[c]
C-4	Repair and maintenance of machines and equipment	.36
Dimension H-11: Building/repairing structures		
F-16	Structural objectives	.89[c]
C-22	Bonding, coating, and related activities using hand tools	.36[c]
A-13	Direct versus abstract mechanical/structural information	.32[b,c]
C-6	Building/repairing wooden structures	.31
C-16	Working on the interiors and exteriors of buildings	.30
Dimension H-12: Use of technical devices		
C-10	Use of scientific and measuring devices/instruments	.65[c]
D-5	Communication by visual signals and auditory codes	.61
F-11	Meteorological and astronomical objectives	.53[c]
A-17	Unnamed information	.50
Dimension H-13: Working with animals		
A-12	Information related to animals	.89
F-12	Objectives related to animals	.75
C-25	Working with animals	.69
Dimension H-14: Improving/monitoring the physical performance, capability, and adjustment of others		
A-19	Direct-contact information pertaining to the appearance, poise, and physical capabilities of people	.63
F-8	Human behavior objectives	.41
B-7	Behavioral perception	.34[c]
F-20	Health service versus general biological objectives	.34[b,c]
D-10	Analyzing and synthesizing information	-.33[c]
E-11	Unnamed	-.35
Dimension H-15: Food processing/preparation activities		
A-14	Food information	.59[c]
G-7	Extreme and changing temperature and humid/wet conditions	.52[c]

Table 14 (continued)

Higher-Order Factor		Rotated Loading[a]
F-14	Material treatment/modification objectives	.43
C-15	Processing food materials	.40
C-21	Applying heat and pressure to materials	.35
Dimension H-16: Technical planning and drawing		
F-5	Technical planning/drawing objectives	.86
D-3	Drafting and drawing	.75[c]
A-8	Spatial/structural/mechanical information	.75
A-13	Abstract versus direct mechanical/structural information	.36
B-3	Numerical and symbolic thinking	.35
B-2	Figural information processing	.32
Dimension H-17: Assembly/material-joining activities		
F-22	Assembly/fabrication objectives	.74[c]
K-1	Arm, hand, and finger coordination and dexterity	.45
A-13	Abstract versus direct mechanical/structural information	.44[c]
C-29	General assembling activities	.40
G-3	Structured work situations	.33[c]
Dimension H-18: Environmental testing and planning		
A-15	Indirect environmental information	.70
F-9	Environmental maintenance and planning objectives	.65[c]
A-4	Environmental information	.47[c]
Dimension H-19: Performing arts activities		
A-10	Performing arts information	.82
F-15	Performing arts objectives	.67
Dimension H-20: Unnamed		
G-9	Rush situations	.55
K-4	Balance and body coordination	.54
B-8	Figural comprehension versus figural problem-solving	.39[b,c]
Dimension H-21: Unnamed		
B-9	Memory	.38[c]
K-9	Control precision	-.36

Table 14 (continued)

Higher-Order Factor		Rotated Loading[a]
Dimension H-22: Vehicle and mechanized equipment operation		
K-6	Tracking	.66
C-8	Driving/operating vehicles and mechanized equipment	.64
Dimension H-23: Organizing and supervising the work of others		
E-1	Organizing and supervising the work of others	-.77
F-13	Organizational performance objectives	-.49
G-14	Authority over others	-.45[c]
G-1	Incentives	-.41[c]
B-1	Semantic thinking	-.35
Dimension H-24: Unnamed		
A-20	Difficulty of numerical information	.46[c]
F-24	Biological/health inspection objectives	.41[c]
C-17	Use of handling, holding, and supporting devices	.31
C-12	Tending/feeding/offbearing stationary machines	-.37
Dimension H-25: Instructing		
E-5	Instructing	.65
F-8	Human behavior objectives	.46
D-6	Using visual and audio-visual equipment	.40
G-8	Social and civic obligations	.33
B-6	Associational fluency	.31
Dimension H-26: Material handling/arrangement activities		
F-19	Material handling/arrangement objectives	.43
Dimension H-27: Unnamed		
A-7	Materials information	.49
F-26	Structural planning and communication objectives	-.30

Table 14 (continued)

Higher-Order Factor		Rotated Loading[a]
Dimension H-28: Verbal communication		
F-25	Oral communication objectives	.45
D-1	Verbal communication: speaking and writing	.35[c]

[a] Rotated loadings less than .30 were omitted.

[b] This is a bipolar first-order factor.

[c] The sign of this loading has been reversed in order to facilitate correct interpretation. Signs of loadings in this table have been reversed whenever it was appropriate to reflect a first-order factor for interpretation purposes.

the use of biological/medical tools, equipment, and materials; and the processing of biological/health-related information, both from direct contact with patients and from indirect (i.e., graphic, numerical, and written) sources. Also involved are biological/health-related planning and written communication. Some examples of jobs with substantial scores on Dimension H-4 are: obstetrical consultant; general practitioner; osteopath; dentist; veterinarian; psychiatrist; industrial nurse; and supervisor of nursing care.

Dimension H-5: Mechanical repair, maintenance, and operation. Dimension H-5 involves objectives and activities pertaining to mechanical repair, maintenance, installation, and operation, along with the prerequisite diagnosing/troubleshooting activities (C-4, F-7). Also loading substantially on Dimension H-5 are various kinds of information from and pertaining to machines (A-6) and physical hazards and discomforts (G-2) which are frequently associated with environments containing operating machinery. Some examples of jobs with substantial scores on Dimension H-5 include: aircraft and engine mechanic; production mechanic, tin cans; automobile service station mechanic; powder-line repairman (explosives); packaging machine mechanic; electrical appliance serviceman; web press man (printing and publishing); and boat mechanic (water transportation).

Dimension H-6: Activities related to visual aesthetics. This dimension is characterized by objectives related to visual aesthetics (F-6), including art/decorative planning, aesthetic arrangement, the communication of art/decorative information, and the creation of original art objects. Also involved are such mental activities as aesthetic judgment, figural ingenuity, and idea originality (B-5), as well as aesthetic information from colors and color schemes, object forms, shapes, arrangements, sketches, and written material (A-5). Some examples of jobs with substantial scores on Dimension H-6 are: lay-out artist; art teacher; executive art director; art coordinator; cloth designer; display manager; artist-writer; and sculptor.

Dimension H-7: Utilization and processing of numerical data. This dimension is characterized by numerical objectives and activities, particularly those related to business (F-1, D-9, B-3). Most prominent are the use of numerical information (A-2), the performance of various numerical operations, and the communication and display of numerical information. The small but salient loadings of the first-order clerical activities (D-2) and incentives context (G-1) factors seem consistent with the larger loadings. Some examples of jobs with substantial scores on Dimension H-7 are: savings operations officer; portfolio investment analyst; treasurer; accountant; bookkeeper I; racing secretary and handicapper; assistant secretary and manager of C.O.P.; and checker I.

Dimension H-8: Botanical activities. This dimension involves objectives and activities related to the care and maintenance of plant life (C-2, F-3), including various kinds of earth working/preparation activities, plant care and harvesting activities, the use of appropriate tools and equipment, and planning and communication related to the care and maintenance of plant life. The use of environmental information (A-4)--from direct contact with the environment as well as from charts, graphs, tables, instruments, and written materials--also loads substantially on Dimension H-8. Consistent with the foregoing interpretation is a smaller but salient loading for working outdoors (G-11). Some examples of jobs with substantial scores on Dimension H-8 are: orchard foreman; farm foreman; vegetable grower; apple farmer; cranberry farm foreman; cranberry grower; and game farm manager.

Dimension H-9: Activities related to physical science and technology. This dimension is marked by objectives and activities related to physical science/technology, including material treatment/modification (F-14), measuring/inspecting physical characteristics (C-19), and combining/separating chemicals and other substances (C-5). More specific elements include: material/substance treatment and modification through chemical, mechanical, heating, electrical, and pressure processes; ensuring the satisfactory state or condition of materials and substances through various measuring and inspecting activities; and, in carrying out those activities, the use of direct and indirect information pertaining to materials, substances, and physical/chemical states and processes (A-18) (e.g., information from direct contact with materials, substances, and processes and indirect information from symbols, measuring devices, and written materials). Also involved is communication with special written codes and technical terms (D-7). Some examples of jobs with substantial scores on Dimension H-9 include: biologist; industrial waste inspector; chief pharmacist; pilot-control operator (chemistry, plastic material); biological tester; quality control pharmacist; and assistant laboratory technician.

Dimension H-10: Electrical/electronic repair, maintenance, assembly and operation. This dimension is characterized by objectives and activities pertaining to the proper functioning of electrical/electronic systems and devices (C-4, C-28, F-2), including testing, diagnosis, repair, maintenance, assembly, installation, and operation. The use of electrical/electronic information (A-1)--from direct contact with equipment/devices and from indirect sources such as symbols, testing and measuring devices, displays, shcematics, diagrams, and written materials--has a substantial loading on Dimension H-10. Some examples of jobs with substantial scores on this dimension are: radio mechanic; senior communications electrician (light, heat, and power); bio-instrumentation technician; foreman, electrical assemblies; electrician helper (any industry); technical instructor; and electric aircraft mechanic (aircraft manufacturing).

Dimension H-11: Building/repairing structures. Dimension H-11 has a substantial loading on structural objectives (F-16), including completed structures, satisfactory condition of structures, finished or prepared surfaces, and installed or attached objects. Consistent with that loading are smaller but salient loadings on direct structural/mechanical information (A-13), bonding and coating activities (C-22), building/repairing wooden structures (C-6), and working on interiors and exteriors of buildings and other structures (C-16). Some examples of jobs involving Dimension H-11 are: shipfitter; spar mechanic (ship and boat building); carpenter helper; bricklayer helper; maintenance carpenter; and bench carpenter.

Dimension H-12: Use of technical devices. This dimension is marked by first-order factors representing the use of scientific and measuring devices/instruments (C-10), communication by visual/auditory signals and codes (D-5), and the monitoring of meteorological/astronomical conditions (F-11). Also loading on Dimension H-12 is an unnamed information factor (A-17) represented by one OAI element--Emergency situations involving people (item 1091). Some examples of jobs with substantial scores on Dimension H-12 are: airline first officer; airplane captain; fishing vessel captain; air-traffic control specialist, tower; airline second officer; bio-instrumentation technician; and physicist. Based on these job examples, it would appear that many of the devices represented are electronic and relate to navigation, communication, and detection.

Dimension H-13: Working with animals. This dimension is characterized by objectives and activities related to the care and handling of animals, including grooming, feeding, training, judging, and minor medical treatment; written communication concerning animals may also be involved (C-25, F-12). Also loading substantially on Dimension H-13 is a first-order factor representing information obtained from direct contact with animals (A-12--e.g., information related to appearance, performance, biological characteristics, and state of health). Some examples of jobs involving Dimension H-13 are: head animal keeper (amusement and recreation); biological tester; pony ride manager-owner; hatchery assistant II; groomer; pets salesperson; livestock farm hand; and dairy farm hand I.

Dimension H-14: Improving/monitoring the physical performance, capability, and adjustment of others. This dimension obtained its highest loadings on a first-order information factor pertaining to the appearance, poise, and physical capabilities of people (A-19) and a first-order goals factor representing human behavior objectives (F-8); lower loadings were obtained on behavior perception (B-7) and health service objectives (F-20). Activities related to the physical performance and capabilities of others occur in a variety of settings, such as health care, education, recreation, and industry. Some examples of jobs involving Dimension H-14 include: occupational therapist; rehabilitation counselor; physical therapist; home-for-aged hostess; art therapist; social director; physical education teacher; unload supervisor; and key punch supervisor.

Dimension H-15: Food processing/preparation activities. Dimension H-15 represents various activities involved in food processing and preparation, such as: washing, cutting, mixing, beating, cooking, and baking (C-15, C-21, F-14). Also involved is the use of direct sensory information from materials being processed and equipment/devices used (A-15--e.g., flavor, odor, color, texture of food materials; cleanliness and operating condition of equipment, tools, containers). Consistent with the involvement of the forenamed factors related to food processing is the substantial loading of work-context factor G-7, involving exposure to extreme or changing temperatures, wetness, or humidity. Some examples of jobs with substantial scores on Dimension H-15 are: dietary aide; short order cook; cook's helper; chef; kitchen supervisor; school lunch supervisor; and hotel steward.

Dimension H-16: Technical planning and drawing. This dimension is marked by first-order factors representing various aspects of technical planning, drawing, and communication--particularly in the mechanical, structural, assembly/fabrication, and electrical/electronic areas. The factors with salient loadings on Dimension H-16 include: technical planning and drafting/drawing (D-3, F-5), the use of direct and indirect (semantic/symbolic) spatial/structural/mechanical information (A-8, A-13), numerical/symbolic thinking (B-3), and figural information processing (B-2). In addition to planning and drawing, written communication is involved in several of the OAI work elements marking the most salient factor in Dimension H-16 (F-5). Some examples of jobs with substantial scores on Dimension H-16 are: electromechanical designer; tool designer; naval architect; thermodynamics engineer; waterworks engineer (distribution design); mechanical engineering assistant (steam plant); and assistant chief engineer.

Dimension H-17: Assembly/material-joining activities. Assembling and other material-joining objectives and activities mark this dimension (F-22, C-29). Among the OAI work elements involved in the assembling factors are mechanical parts, electrical and electronic parts, screws and non-electric wire, mechanical fastening tools and devices, and miscellaneous metal parts. Consistent with the loadings of the two assembling factors is a significant loading for direct mechanical/structural information, which includes elements pertaining to the appearance of assembled or constructed objects in relation to prescribed standards; the interrelation, position, and fit of connected parts or objects; and connections and fastenings of objects and parts. The first-order factors of arm, hand, and finger coordination/dexterity (K-1) and structured work situations (G-3) also have significant loadings on Dimension H-17. Some examples of jobs with substantial scores on this dimension include: module assembler (electronics); small products assembler; accessories assembler; electronics assembler; electric motor assembler; microwave tube assembler; and mounter I (electronics).

Dimension H-18: Environmental testing and planning. This dimension is marked by three first-order factors related to environmental testing, planning, and maintenance. Two of those factors (A-4, A-15) involve (1) the use of environmental test equipment and measuring devices, tables and graphs, and written materials pertaining to the environment; and (2) the processing of information obtained from direct sensory contact with the physical environment. The third salient factor involves environmental maintenance and planning objectives (F-9), including the maintenance of satisfactory water conditions; the development of innovations or plans concerning water or atmospheric conditions; written communications pertaining to water or atmospheric conditions; and the production of environmental charts, diagrams, or maps. Some examples of jobs involving Dimension H-18 are: hydrologist; air and water control director; waste treatment consultant; industrial waste inspector; chemical engineer; and waterworks engineer.

Dimension H-19: Performing arts activities. Two first-order factors have substantial loadings on this dimension: (1) performing arts information (A-10), including such elements as music (e.g., quality of the sound of a musical group), musical notation, and facial expressions, body movements, or speech/voice characteristics of a performer (e.g., body movements of a dancer, gestures and facial expressions of an actor); and (2) performing arts objectives (F-15), including successfully completed performances and innovations in the performing arts. Some examples of jobs with substantial scores on Dimension H-19 are: music director; music supervisor; musician (instrumental); music teacher; music store manager; bugler; executive producer; and recreation director (hotel and restaurant).

Dimension H-20: Unnamed. Dimension 20 appears to involve body movement (K-4) and interaction with the physical environment (B-8) in rush situations (G-9). The investigators were unable, however, to develop a clear interpretation of the dimension.

Dimension H-21: Unnamed. Dimension H-21 is marked by rather low loadings on two first-order factors and does not appear to be very meaningful. As might be expected, the dimension has a low coefficient of congruence. (See Table 13.)

Dimension H-22: Vehicle and mechanized equipment operation. Two first-order factors mark this dimension: (1) tracking (K-6), including the OAI elements of tracking, control precision, reaction time, and multilimb coordination; and (2) driving/operating vehicles and mechanized equipment (C-8), involving the elements of driving/operating, foot-operated continuous controls, hand-operated continuous controls, and hand-operated discrete controls. Some examples of jobs with substantial scores on Dimension H-22 are: power-shovel operator; heavy equipment operator; gasoline truck operator; chauffeur; airplane captain; fork-lift-truck operator; and log stacker operator (sawmill).

Dimension H-23: Organizing and supervising the work of others. Dimension H-23 is marked by first-order factors representing responsibility for the performance of individuals and organizations. The factor with the highest loading involves organizing and supervising the work of others (E-1), including such elements as organizing, personnel actions, evaluating, supervising, and disciplining. Another important factor involves organizational objectives (F-13) such as developing organizational plans, attaining satisfactory levels of organizational performance, collecting and compiling organizational data, business/organizational communication, and maintaining satisfactory employee relations. Other factors with significant loadings involve authority over others (G-14), [illegible] incentives context (G-1, which includes organizational responsibility as well as other incentives), and semantic thinking (B-1). Some examples of jobs with substantial scores on this dimension are: refill assembly foreman (pen and pencil); warehouse manager; plate manufacturing foreman (electrical equipment); airline lounge manager; quality control director; corporation president; and chief telephone operator.

Dimension H-24: Unnamed. This dimension involves the use of numerical information (A-20); biological/health-inspection objectives (F-24); and the use of handling, holding, and supporting devices (C-17). In addition to the positive loadings for those three first-order factors, C-12 (tending/feeding/offbearing stationary machines) has a small but significant negative loading. The investigators were unable to develop a meaningful interpretation of Dimension H-24's factor-loading pattern.

Dimension H-25: Instructing. Instructing (E-5), human behavior objectives (F-8), and using visual/audio-visual equipment (D-6) are the first-order factors with the highest loadings on Dimension H-25; associational fluency (B-6) and social/civic obligations (G-8) have smaller but significant loadings. Some examples of jobs involving instructing are: computer operations instructor; college faculty member; secondary school teacher; physical education teacher; social director; and director of religious education.

Dimension H-26: Material handling/arrangement activities. This dimension is tenuous, since it is marked by only one first-order factor and has a low coefficient of congruence. (See Table 13.) The first-order factor defining Dimension H-26 involves material handling/arrangement objectives (F-19), including properly located or placed objects; merchandise shelved, packaged, demonstrated, or otherwise handled; and spatially arranged objects. Some examples of jobs involving material handling/arrangement activities are: set packing order man; bakery sales clerk; storeroom clerk; dietary aide; stock clerk; receiving clerk; and art coordinator.

Dimension H-27: Unnamed. The investigators were unable to interpret Dimension H-27; the dimension had a low coefficient of congruence (Table 13).

Dimension H-28: Verbal communication. This dimension has a very low coefficient of congruence (Table 13) and is marked by rather low loadings on only two first-order factors: oral communication objectives (F-25) and verbal communication--speaking and writing (D-1). Those two factors are logically compatible, however, and consistent with the title assigned to Dimension H-28. Some examples of jobs in which verbal communication is important are: dispatcher; survey worker; executive art director; principal; psychiatrist; columnist; and unemployment insurance hearing officer.

DISCUSSION

This study involved the derivation of human work dimensions through factor analyses of the work elements (items) in the Occupation Analysis Inventory (OAI). These analyses were performed on the OAI ratings of 1414 jobs representing the percentages of workers employed in five major occupational categories.

Factor analyses of eight separate sections of OAI elements produced 132 first-order work dimensions, and a subsequent overall factor analysis of the first-order dimensions yielded 28 general, higher-order dimensions. For the most part, the resultant dimensions were readily interpretable and meaningful; the investigators were unable to name only five first-order and four higher-order dimensions. The titles of the first- and higher-order dimensions are summarized in Tables 15 and 16, respectively.

Analyses of factorial stability were performed involving the computation of congruence coefficients between factors derived from two separate subsamples of jobs. These stability analyses were carried out for both orthogonally and obliquely rotated first-order factors and for orthogonally rotated higher-order factors.

Since there is no test of significance for the coefficient of congruence, its interpretation is somewhat ambiguous (Pinneau and Newhouse, 1964). The major difficulty with this index lies in establishing a minimum value for factor similarity, or congruence. In that regard, Tucker (1951) has described a congruence coefficient of .9398 as "moderately high," and coefficients of .9997 and above as "high." As noted by Struening and Cohen (1963), however, ". . . the variables in Tucker's study were tests or item composites rather than single . . . items with known high errors of measurement." Accordingly, in comparing factors derived from test items, those investigators accepted the considerably lower value of .787 as an indication of ". . . a moderate degree of congruence." Following Struening and Cohen's rationale, Thomson (1963) set a minimum level of .60 for factor congruence in comparing factors derived from life-history items; and McCormick, Cunningham, and Gordon (1967) later adopted Thomson's criterion in their comparisons of factors derived from the application of the Worker Activity Profile items to two samples of jobs. In a subsequent factor analytic study of the OAI, Riccobono and Cunningham (1974b) also set a minimum acceptable value of .60 for the congruence coefficient, though acknowledging that ". . . this value is not an indication of a high relationship between two factors" (p. 71). Because of the aforementioned difficulty in interpreting the coefficient of congruence, no attempt was made in the present study to establish a minimum acceptable value for this index. Rather, the results of the congruence analyses in this study must be evaluated *in toto* against results obtained in other factor analytic studies involving similar variables.

Table 15

Titles of 132 First-Order Work Dimensions Derived from Factor Analyses of Eight Separate Sections of OAI Elements

Dimension Code	Dimension Title
	Information Received
A-1	Electrical and electronic information
A-2	Business-related numerical information
A-3	Health and biological information
A-4	Environmental information
A-5	Information related to visual aesthetics
A-6	Information from machines
A-7	Materials information
A-8	Spatial/structural/mechanical information
A-9	Information related to people and human behavior
A-10	Performing arts information
A-11	Structure and format of written information
A-12	Information related to animals
A-13	Abstract versus direct mechanical/structural information
A-14	Food information
A-15	Indirect environmental information
A-16	Direct business/sales information
A-17	Unnamed
A-18	Physical science and technology information
A-19	Direct-contact information pertaining to the appearance, poise, and physical capabilities of people
A-20	Difficulty of numerical information
	Mental Activities
B-1	Semantic thinking
B-2	Figural information processing
B-3	Numerical and symbolic thinking
B-4	Routine symbolic and semantic information processing: clerical activities
B-5	Aesthetic/figural creativity
B-6	Associational fluency
B-7	Behavioral perception
B-8	Figural comprehension versus figural problem-solving
B-9	Memory
B-10	Semantic problem detection and comprehension
	Physical Work Behavior
C-1	Removing material using stationary machines
C-2	Earth working and care/harvesting of plant life

Table 15 (continued)

Dimension Code	Dimension Title
C-3	Medical treatment
C-4	Repair and maintenance of machines and equipment
C-5	Combining and separating chemicals and other substances and materials
C-6	Building/repairing wooden structures and products
C-7	Fiber/thread working
C-8	Driving/operating vehicles and mechanized equipment
C-9	Surface finishing
C-10	Use of scientific and measuring devices/instruments
C-11	Operating material-joining equipment
C-12	Tending/feeding/offbearing stationary machines
C-13	Material forming
C-14	Use and handling of sporting equipment
C-15	Processing food materials
C-16	Working on the interiors and exteriors of buildings
C-17	Use of handling, holding, and supporting devices
C-18	Bonding, stitching, and fastening with portable powered tools
C-19	Measuring/inspecting physical characteristics
C-20	Unnamed
C-21	Applying heat and pressure to materials
C-22	Bonding, coating, and related activities using hand tools
C-23	Using foot-operated settings and controls
C-24	Unnamed
C-25	Working with animals
C-26	Abrading, shaping, cutting, and fusing with powered tools/equipment
C-27	Sawing and shaping with powered and non-powered tools
C-28	Testing and repairing electrical/electronic equipment
C-29	General assembling activities
C-30	Routine cleaning and object handling activities
	General Physical Requirements
K-1	Arm, hand, and finger coordination and dexterity
K-2	Dynamic strength/endurance
K-3	Standing versus sitting
K-4	Balance and body coordination
K-5	Running and/or lying
K-6	Tracking
K-7	General body and arm/hand strength
K-8	Climbing/kneeling/stooping/crawling
K-9	Control precision

Table 15 (continued)

Dimension Code	Dimension Title
	Representational Work Behavior
D-1	Verbal communication: speaking and writing
D-2	Clerical activities
D-3	Drafting and drawing
D-4	Electronic data processing
D-5	Communication by visual signals and auditory codes
D-6	Using visual and audio-visual equipment
D-7	Using written codes
D-8	Using keyboard and other office equipment
D-9	Performing numerical operations
D-10	Analyzing and synthesizing information
D-11	Recording information in writing
D-12	Using voice transmission devices
	Interpersonal Work Behavior
E-1	Organizing and supervising the work of others
E-2	Resolving conflicts
E-3	Serving/assisting
E-4	Being supervised
E-5	Instructing
E-6	Treating
E-7	Obtaining and giving information
E-8	Persuading
E-9	Entertaining/socializing
E-10	Assisting superiors
E-11	Unnamed
	Work Goals
F-1	Bookkeeping objectives
F-2	Electrical/electronic function objectives
F-3	Botanical objectives
F-4	Biological/health objectives
F-5	Technical planning/drawing objectives
F-6	Visual aesthetics objectives
F-7	Mechanical function objectives
F-8	Human behavior objectives
F-9	Environmental maintenance and planning objectives
F-10	Editing, proofing, and clerical objectives
F-11	Meteorological and astronomical objectives
F-12	Objectives related to animals
F-13	Organizational performance objectives
F-14	Material treatment/modification objectives

Table 15 (continued)

Dimension Code	Dimension Title
F-15	Performing arts objectives
F-16	Structural objectives
F-17	Terrain/earth planning and communication objectives
F-18	Sales and public relations objectives
F-19	Material handling/arrangement objectives
F-20	General biological versus health service objectives
F-21	Electrical/electronic planning and communication objectives
F-22	Assembly/fabrication objectives
F-23	Terrain/earth modification and maintenance objectives
F-24	Biological/health inspection objectives
F-25	Oral communication objectives
F-26	Structural planning and communication objectives
	Work Context
G-1	Incentives
G-2	Physical hazards and discomforts
G-3	Structured work situations
G-4	Variable versus consistent work schedules
G-5	Irregular versus regular work
G-6	Conflict situations
G-7	Extreme and changing temperature and humid/wet conditions
G-8	Social and civic obligations
G-9	Rush situations
G-10	Unnamed
G-11	Working outdoors
G-12	Social service context
G-13	Working alone versus working among others
G-14	Authority over others

NOTE--The titles under each of the eight centered headings in this table represent the results of a separate factor analysis of a section of OAI work elements; i.e., the table summarizes the results of eight factor analyses.

Table 16

Titles of 28 Higher-Order Work Dimensions Obtained from a Factor Analysis of 132 First-Order OAI Dimensions

Dimension Code	Dimension Title
H-1	Human assistance, improvement, and assessment activities
H-2	Sales, service, and public relations activities
H-3	Routine semantic and symbolic activities: clerical activities
H-4	Biological/health-related activities
H-5	Mechanical repair, maintenance, and operation
H-6	Activities related to visual aesthetics
H-7	Utilization and processing of numerical data
H-8	Botanical activities
H-9	Activities related to physical science and technology
H-10	Electrical/electronic repair, maintenance, assembly, and operation
H-11	Building/repairing structures
H-12	Use of technical devices
H-13	Working with animals
H-14	Improving/monitoring the physical performance, capability, and adjustment of others
H-15	Food processing/preparation activities
H-16	Technical planning and drawing
H-17	Assembly/material-joining activities
H-18	Environmental testing and planning
H-19	Performing arts activities
H-20	Unnamed
H-21	Unnamed
H-22	Vehicle and mechanized equipment operation
H-23	Organizing and supervising the work of others
H-24	Unnamed
H-25	Instructing
H-26	Material handling/arrangement activities
H-27	Unnamed
H-28	Verbal communication

Of the congruence coefficients obtained for the 132 orthogonally rotated first-order OAI factors, 80 percent exceeded a value of .59, 71 percent exceeded .69, 58 percent exceeded .79, and 44 percent exceeded .89; the congruence coefficients for the 132 obliquely rotated factors were generally lower (cf, Tables 3 and 4). These results are a considerable improvement over an earlier factor analytic study of the OAI (Riccobono and Cunningham, 1974b) and over the results obtained by McCormick et al. (1967; Cunningham and McCormick, 1964) from sectional factor analyses of the Worker Activity Profile items. The distribution of congruence coefficients for the 28 orthogonally rotated higher-order OAI factors was similar to that obtained for the first-order factors: 82 percent exceeded a value of .59, 75 percent exceeded .69, 47 percent exceeded .79, and 36 percent exceeded .89. There are no previous findings to which the congruence coefficients of the higher-order OAI factors can be directly compared, but it can be noted that five general factors obtained by Jeanneret and McCormick (1969; McCormick, Jeanneret and Mecham, 1972) in an overall analysis of the Position Analysis Questionnaire (PAQ) items showed greater stability than the higher-order OAI factors. Although the sectional PAQ factors were not subjected to congruence analyses, they are very likely more stable than the sectional (first-order) OAI factors, since high congruence coefficients were obtained for the five general PAQ factors.

It can be concluded that the results of the congruence analyses indicate some degree of stability, or replication, in the OAI factor structures derived from two separate subsamples of jobs. Although it must be said that the congruence coefficients were generally lower than would be desired, it is likely that they underestimate the stability of the factors presented in this report, since those factors are based on a total sample of 1414 jobs whereas the congruence coefficients represent relationships between factors derived from two subsamples of only 707 jobs each. It is interesting that the congruence coefficients were generally higher for the orthogonally rotated factors than for the obliquely rotated factors obtained through the maxplane rotation procedure: a comparison of Tables 3 and 4 suggests that at least for the kind of data represented in this study, the orthogonal rotation procedure produces better results.

As indicated previously, the OAI represents an attempt to achieve as much specificity in occupational description as possible, while retaining the instrument's applicability to the entire occupational spectrum (Cunningham et al., 1974); the 622 elements (items) contained in this instrument cover a wide variety of work activities and conditions. Moreover, the job sample for which the OAI ratings in this study were obtained is quite large and reasonably representative of the job population (Table 2). Thus, the OAI work dimensions should be broadly representative of the kinds of activities and conditions existent in the world of work. It should be recognized, however, that there is a definite limit to the level of descriptive specificity that can be attained in an instrument designed for the entire job population and that the OAI work dimensions reflect that limitation. An increase over the degree of specificity offered by the OAI would require the development of instruments applicable to restricted ranges, or classes, of jobs (e.g., task inventories; Cunningham, 1974); but, first, it would be necessary to define the occupational classes for which the more specific descriptive instruments should be designed. Such classes could be derived through cluster analyses of the OAI work-dimension score profiles of large, representative samples of jobs.

Of the several potential applications of the OAI work dimensions, the most immediate and important lies in the area of occupational taxonomy development. Through a hierarchical cluster analysis of the OAI first-order work-dimension profiles of the 1414 jobs involved in the present study, Pass and Cunningham (1975) have derived 21 general (macro) occupational clusters which, in turn, subsume 88 narrower (micro) clusters. This cluster structure is readily interpretable and potentially applicable as a framework for occupational exploration and guidance. Moreover, based on Pass and Cunningham's results, it seems likely that further taxonomic research involving the OAI dimensions could produce an occupational cluster structure that would serve as a suitable framework for vocational/technical education programs.

The OAI dimensions might also be used in the analysis of vocational/technical education programs. For example, the work-dimension profiles of a vocational program and its related occupations would provide information concerning important kinds of work activities in relation to occupational requirements. Discrepancies between the work-dimension profiles of the educational program and its target occupations would identify areas that should be examined to determine if curricular revisions were needed. OAI work-dimension profiles might also be used to relate existing vocational/technical programs to appropriate occupations and occupational clusters or classifications. A short form of the OAI containing items based on the first-order work dimensions (instead of the original 622 work elements) would provide a more practical, less time-consuming means of carrying out the aforementioned applications. Such an instrument is, in fact, currently under development (Parry-Hill, 1975).

Another application of the OAI dimensions might be found in occupationally related test development, under the rationale that for some purposes it would be useful to measure people and occupations on the same dimensions (Cunningham, 1974; Cunningham _et al_., 1974). According to that rationale, abilities can be defined in terms of performance levels and interests in terms of preferences (expressed approach-avoidance tendencies) in relation to specified classes of activities or tasks. Selecting a set of 22 OAI higher-order dimensions as broadly representative of the work-activity structure, Cunningham, Slonaker, and Riegel (1975) developed 22 corresponding interest scales on a pilot basis and administered them to over 500 high school students. Analyses of the data produced results supporting the feasibility of measuring interests in terms of the OAI dimensions. In addition, the investigators believe that it might prove feasible to develop general occupational capability tests based on selected OAI dimensions (Altman, 1966; Cunningham *et al*., 1974).

REFERENCES

Bates, J. A., & Cunningham, J. W. Cognitive correlates of systematically derived work dimensions: validation of the occupation analysis inventory (Ergometric Research and Development Report No. 8). Raleigh, North Carolina: North Carolina State University, Center for Occupational Education, in press.

Cattell, R. B. The scree test for the number of factors. Multivariate Behavioral Research, 1966, 1, 245-277.

Cattell, R. B., & Muerle, J. L. The "maxplane" program for factor rotation to oblique simple structure. Educational and Psychological Measurement, 1960, 20, 569-589.

Cunningham, J. W. "Ergometrics": a systematic approach to some educational problems. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 144-45. (Ms. No. 804)

Cunningham, J. W., & McCormick, E. J. Factor analyses of "worker-oriented" job variables (Report No. 4, Contract Nonr-1100 (19)). West Lafayette, Indiana: Purdue University, Occupational Research Center, 1964.

Cunningham, J. W., Slonaker, D. F., & Riegel, N. B. The development of activity preference scales based on systematically derived work dimensions: an ergometric approach to interest measurement. JSAS Catalog of Selected Documents in Psychology, 1975, 5, 355. (Ms. No. 1154)

Cunningham J. W., Tuttle, T. C. Floyd, J. R., & Bates, J. A. The development of the occupation analysis inventory: an "ergometric" approach to an educational problem. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 144. (Ms. No. 803)

Dixon, J. W. (Ed.). Biomedical computer programs: X-series supplement. Berkeley: University of California Press, 1970.

Gorsuch, R. L. Factor analysis. Philadelphia: W. B. Saunders, 1974.

Harman, H. H. Modern factor analysis. Chicago: The University of Chicago Press, 1960.

Heath, W. D., III, Cunningham, J. W., & Augustin, J. W. Ability correlates of systematically derived occupational variables: a repeated study. JSAS Catalog of Selected Documents in Psychology, 1975, 5, 354. (Ms. No. 1153)

Jeanneret, P. R. & McCormick, E. J. The job dimensions of "worker-oriented" job variables and their attribute profiles as based on data from the position analysis questionnaire (Report No. 2, Contract Nonr-1100 (28)). West Lafayette, Indiana: Purdue University, Occupational Research Center, June, 1969.

McCormick, E. J., Cunningham, J. W. & Gordon, E. E. Job dimensions based on factorial analyses of worker-oriented job variables. Personnel Psychology, 1967, 20, 417-430.

McCormick, E. J., Jeanneret, P. R., & Mecham, R. C. A study of job characteristics and job dimensions as based on the position analysis questionnaire (PAQ). Journal of Applied Psychology, 1972, 56, 347-368 (Monograph)

Parry-Hill, J. W., Jr. The initial development and validation of a short form occupation analysis inventory based on systematically derived work dimensions. Raleigh, North Carolina: North Carolina State University, Center for Occupational Education, 1975.

Pass, J. J., & Cunningham, J. W. Occupational clusters based on systematically derived work dimensions: final report (Ergometric Research and Development Report No. 16). Raleigh, North Carolina: North Carolina State University, Center for Occupational Education, 1975.

Pinneau, S. R. & Newhouse, A. Measures of invariance and comparability in factor analysis for fixed variables. Psychometrika, 1964, 29, 271-281.

Riccobono, J. A. & Cunningham, J. W. Work dimensions derived through systematic job analysis: a study of the occupation analysis inventory. JSAS Catalog of Selected Documents in Psychology, 1974a, 4, 145-146. (Ms. No. 806)

Riccobono, J. A. & Cunningham, J. W. Work dimensions derived through systematic job analysis: a replicated study of the occupation analysis inventory. JSAS Catalog of Selected Documents in Psychology, 1974b, 4, 146. (Ms. No. 807)

Riccobono, J. A., Cunningham, J. W., & Boese, R. R. Clusters of occupations based on systematically derived work dimensions: an exploratory study. JSAS Catalog of Selected Documents in Psychology, 1975, 5, 352. (Ms. No. 1150)

Rummel, R. J. Applied factor analysis. Evanston, Illinois: Northwestern University Press, 1970.

Struening, E. L. & Cohen, J. Factorial invariance and other psychometric characteristics of five opinions about mental illness factors. Educational and Psychological Measurement, 1963, 23, 289-298.

Thomson, R. W. *A factor analysis of the life history correlates of engineering interests*. Unpublished doctoral dissertation, Purdue University, 1963.

Tucker, L. R. *A method for synthesis of factor analysis studies* (Report No. 984). Washington, D. C.: Department of the Army, Personnel Research Section, 1951.

Tuttle, T. C., & Cunningham, J. W. Affective correlates of systematically derived work dimensions: validation of the occupation analysis inventory. JSAS *Catalog of Selected Documents in Psychology*, 1974, *4*, 147. (Ms. No. 808)

U. S. Department of Commerce, Bureau of the Census. *United States census of population, 1960* (Table 201). Washington, D. C.: U. S. Government Printing Office, 1963.

U. S. Department of Commerce, Bureau of the Census. *Characteristics of the population, Volume I* (Table 91). Washington, D. C.: U. S. Government Printing Office, 1973.

U. S. Department of Labor, Bureau of Employment Security. *Dictionary of occupational titles: occupational classification, Volume II* (3rd ed.). Washington, D. C.: U. S. Government Printing Office, 1965.

U. S. Department of Labor, Bureau of Employment Security. *Selected characteristics of occupations (physical demands, working conditions, training time): a supplement to the dictionary of occupational titles* (3rd ed.). Washington, D. C.: U. S. Government Printing Office, 1966.

U. S. Department of Labor, Bureau of Employment Security. *Manual for the general aptitude test battery, section III: development*. Washington, D. C.: U. S. Government Printing Office, 1967.

U. S. Department of Labor, Bureau of Labor Statistics. *Employment and unemployment in 1970: special labor force report 129*. Washington, D. C.: U. S. Government Printing Office, 1971.

Winer, B. J. *Statistical principles in experimental design* (2nd ed.). New York: McGraw-Hill, 1971.

APPENDICES

APPENDIX A

PROCEDURES FOR DRAWING THREE JOB SAMPLES COMPRISING THE TOTAL SAMPLE OF 1414 JOBS

(1) Procedure for Drawing the First Sample of 400 Jobs (Riccobono and Cunningham, 1974a)

(2) Procedure for Drawing the Second Sample of 414 Jobs (Riccobono and Cunningham, 1974b)

(3) Procedure for Drawing the Third Sample of 600 Jobs (Present Study)

(1) Procedure for Drawing the First Sample of 400 Jobs (Riccobono and Cunningham, 1974a)

The job sample was drawn in proportion to numbers of jobs under major DOT categories. Under the DOT classification scheme, all jobs are grouped into nine major occupational categories identified by the numbers 0-9 in the first digit of the code. These, in turn, are divided into 84 two-digit occupational divisions which are further subdivided into 603 three-digit groups.

Volume II of the DOT lists four different types of job titles under each of the three-digit occupational groups. Base titles are defined and accompanied by code numbers in Volume I; these titles appear at the left-hand margin in all capital letters. Defined related titles are defined in Volume I indented under the definitions of the base titles and carry the same code number as the latter; they also appear in all capital letters and are indented under base titles in Volume II. Alternate titles appear in all lower case letters under base titles; these are alternate or synonym titles for those which immediately precede them. Undefined related titles appear with initial capital letters under base titles; these are specializations of the more general titles described in the definitions in which they appear, and they receive the same code as the base titles.

Determining Number of Jobs To Be Drawn from Two-Digit Divisions

The steps which were followed in determining the number of jobs to be drawn from each two-digit occupational division are listed below:

1. First, a count was taken under each three-digit group of the number of base and defined related titles. This number was then recorded next to the title of the three-digit group.

2. Next, the total number of base and defined related titles within three-digit groups were summed for each of the 84 two-digit divisions.

3. The totals for two-digit divisions were then summed across all 84 divisions, yielding a grand total of 13,845 base and defined related titles.

4. Using the grand total of 13,845 as a denominator, each of the two-digit totals was divided by this denominator. For example, the first two-digit division (00-01) contained 304 titles; thus, 304 was divided by 13,845, yielding a proportion of .0220.

5. Since it was decided that the job sample would contain 400 jobs, the sample of 400 was subsequently multiplied by the proportion that had been derived for each two-digit division. Thus, the proportion of .0220 for the first two-digit division was multiplied by 400, yielding a figure of 8.800. This figure represents the number of jobs in the sample of 400

which should be drawn from the first two-digit division (00-01). The resulting figures were rounded to whole numbers (e.g., 8.800 was rounded to 9); the total of these whole numbers across all 84 division equalled 401. Under this procedure only two of the 84 divisions had a rounded whole number of 0.

Determining Number of Cases To Be Drawn from Three-Digit Codes

There are 13,845 base and defined related titles in the DOT, and the sample was to contain 400 occupations drawn in proportion to the number of base and defined related titles under two- and three-digit codes. Thus, the sampling ratio was 1:34.61 or 1:35 (i.e., one case was to be sampled for every 35 base or defined related titles in the DOT).

It was decided that one case would be drawn from all three-digit codes which contained at least 18 titles (50 percent of 35) but less than 53 titles (150 percent of 35); two cases would be drawn from those three-digit codes which contained at least 53 titles (150 percent of 35) but less than 88 titles (250 percent of 35); etc. The complete sampling scheme is shown below.

Number of Titles in Three-Digit Codes	Number of Cases Drawn
18 - 52	1
53 - 87	2
88 - 122	3
123 - 157	4
158 - 192	5
193 - 227	6
228 - 262	7

A sizable number of the three-digit codes contain less than 18 base or defined related titles and, therefore, were not treated by the sampling procedure described above. Thus, it was necessary to combine three-digit codes containing less than 18 titles into groups which contained more than 18 titles and could, therefore, be represented in the sampling scheme. The procedure for combining such three-digit codes was as follows: within each two-digit occupational division, three-digit codes containing less than 18 titles were combined consecutively until the combined number of titles exceeded 18. At this point, the group was considered complete (since it warranted representation by at least one case in the sample), and a new group was started by successively combining the remaining three-digit codes containing less than 18 titles. This procedure continued until all three-digit codes containing less than 18 titles had been combined (into groups containing more than 18 titles) within a two-digit occupational division. In cases where all three-digit codes containing less than 18 titles were exhausted with the exception of remaining three-digit codes whose combined titles totaled less than 18, the latter were assigned to the previously formed groups of three-digit codes according to the following procedure: the remaining three-digit codes were added to the previously formed group with the lowest number of titles, until the total number of titles in that group exceeded 35. If the remaining three-digit codes were still not exhausted, they were assigned to the group with the next lowest number of titles, until the number of titles in that group exceeded 35. This procedure continued until all remaining three-digit codes with less than 18 titles were exhausted. In cases where all groups of three-digit codes contained more than 35 titles, the three-digit codes with less than 18 titles were assigned on a one-per-group basis, beginning with the group containing the fewest number of titles over 18.

Correcting Total Sample Size Across Three-Digit Groups

The number of cases to be drawn from each three-digit group was determined according to the previously described sampling scheme. Sampling values (i.e., the number of cases to be drawn from each three-digit code or group of three-digit codes as determined by the sampling scheme) were then totaled within each two-digit occupational division. In cases where these totals did not equal the sample sizes that had been previously determined for two-digit occupational divisions (i.e., sample sizes determined by multiplying the proportion of titles in a given two-digit occupational division by 400), it was necessary to correct the total across three-digit codes. The correction procedure is described below.

Removing cases from the three-digit total. If the total across three-digit codes was greater than the previously determined two-digit sample size, the excess cases were removed from the three-digit total by the following procedure:

A. To remove one case:

(1) Find the three-digit group with the highest sample number and reduce its value by "1."

(2) If two or more groups have the highest sample number, then randomly select one of these groups and reduce its value by "1."

(3) If all groups have a sample number of "1," then eliminate the sample number of the group having the fewest number of titles. Then place the three-digit code(s) for that group into the group having the next fewest number of titles, such that the additional titles will not change the assigned sample number of the latter.

B. To remove two or more cases:

(1) If the highest sample number for three-digit groups is greater than "1," and if there are more three-digit groups with this value than there are cases to be removed,

then apply the following rule: randomly select the same number of these groups as there are cases to be removed, and reduce the sample number of each selected group by "1."

(2) If the highest sample number is greater than "1," and if there are fewer groups with this value than there are cases to be removed, then apply the following rule: subtract one from each group having the highest sampling number, and proceed to the groups with the next highest sample number. If this next value is greater than "1," then follow the appropriate steps as described in B(1) above in removing the remaining cases. If the next highest sample number equals "1," then follow the steps outlined in A(3) above in removing the remaining cases.

(3) If all groups have a sample number of "1," then remove the necessary number of cases according to the procedure described in A(3), beginning with the group having the fewest number of titles for its sample number; then proceed to the group with the next fewest number of titles, and so on, until the appropriate number of excess cases has been removed.

Adding cases to the three-digit total. If the total across three-digit codes was less than the previously determined two-digit sample size, the required number of cases was added to the three-digit total by the following procedure:

A. To add one case:

(1) Find the three-digit group with the lowest sample number and increase its value by "1."

(2) If more than one group has the lowest sample number, then pick the group having the greatest number of titles and increase its sample number by "1."

B. To add two or more cases:

(1) If there are more groups having the lowest sample number than there are cases to be added, then apply the following rule: select those groups (with the lowest sample number) having the greatest number of titles and increase the sample number of each group by "1" until the number of cases to be added has been exhausted.

(2) If there are fewer groups having the lowest sample number than there are cases to be added, then apply the following rule: add one to each group having the lowest sample number, and then proceed to the groups with the next lowest

sample number, and so on, applying the rule described in the preceding paragraph.

Drawing Cases from Three-Digit Groups

The steps involved in drawing the specified number of cases (i.e., the specified number of occupational titles) from each three-digit group are described below.

1. If one case was to be drawn from a group containing only one three-digit code, then it was randomly drawn from the total number of titles in that three-digit code.

2. If one case was to be drawn from a group containing more than one three-digit code, the following procedure was used:

    a. Draw randomly one case from the total number of titles in the group of three-digit codes.

    b. Determine under which three-digit code the selected case falls.

    c. Convert the selected number into the number it corresponds to within the three-digit code under which it falls. For example, suppose there are 3 three-digit codes within a group (013, 014, 015) and that 013 contains 3 titles, 014 contains 10 titles, and 015 contains 9 titles, resulting in a total of 22 titles for the combined three-digit group. If the randomly selected number is 18, then this number would fall under group 015; and within this code, the selected case would be the fifth title.

3. If more than one case was to be drawn from a group containing only one three-digit code, the following procedure was used:

    a. Divide the total number of cases within the group into upper and lower halves. If the total number of cases in the three-digit code is odd, randomly assign the odd case to one of the halves.

    b. Randomly draw an equal number of cases from each of the two halves. If the number of cases to be drawn is odd, then choose randomly the half from which the odd case will be drawn. The division of cases into upper and lower halves is based on the fact that titles are arranged in order of skill level within three-digit codes; thus, dividing the total number of titles within a three-digit code into halves and drawing an equal number of cases from each half increases the likelihood of an even distribution of skill levels in the sample.

4. If two or more cases were to be drawn from a group containing more than one three-digit code, the following procedure was used:

   a. Divide the cases for each three-digit code within the group into upper and lower halves.

   b. Place all upper halves for three-digit codes into one group (i.e., a total upper half) and all lower halves for the three-digit codes into another group (i.e., a total lower half).

   c. Randomly draw an equal number of cases from each half, as described in 3(b) above.

   d. Convert the randomly selected numbers back to their appropriate numbers within the original three-digit codes, following the procedure described in paragraph 2(c) above.

Recording the Appropriate DOT Title and Six-Digit Code

After the appropriate numbers of the randomly selected cases within each three-digit code or group had been determined by the procedure described above, the occupational titles and six-digit codes corresponding to these cases were identified by counting down the appropriate number to base and defined related titles within each three-digit code. For example, if the randomly selected case within a three-digit code were 9, the ninth base or defined related title under that three-digit code was recorded along with its six-digit *DOT* number.

(2) Procedure for Drawing the Second Sample of 414 Jobs (Riccobono and Cunningham, 1974b)

Although the sample in the previous study (Riccobono and Cunningham, 1974a) was drawn in proportion to the numbers of jobs within major occupational categories of the Dictionary of Occupational Titles (U. S. Department of Labor, 1965), there is a second sampling strategy that might be employed in selecting a representative sample of jobs (Cunningham and McCormick, 1964). This strategy would entail drawing jobs in proportion to the numbers of people employed within the major occupational groups defined by the U. S. Bureau of Labor Statistics. For the replicated study, 400 jobs were drawn using this second sampling strategy.*

Prior to this study, 290 written job descriptions had been drawn from the files of the U. S. Employment Service (USES) corresponding to occupational titles for which General Aptitude Test Battery data were available (U. S. Department of Labor, 1967). Written descriptions were also available for approximately 50 additional jobs for which various test data were to be collected. These jobs for which written descriptions were already available (for use in other studies) comprised the initial base for the construction of the job sample used in the present study. This sample was constructed in conformance with the percentage distribution of the employed population in the major occupational categories of the U. S. Bureau of Labor Statistics.

The steps in sample construction were as follows:

1. First, the titles of the available job descriptions were sorted into the major occupational categories of the Bureau of Labor Statistics.

2. The number of titles falling into each category was then divided by 400 (the total sample size),* and the resulting proportion was compared with the existing proportion of the employed population falling into that category.

3. Next, a determination was made of the number of sample cases to be added or subtracted from each category in order to bring the sample into conformance with the population figures.

4. Finally, the appropriate numbers of job titles were randomly removed from those categories containing excess sample cases and randomly added to those categories with insufficient numbers of sample cases. In instances where cases were added, occupational titles were drawn randomly

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*This section describes the procedure for drawing a second sample of 400 jobs; however, after those jobs were drawn according to the described sampling plan, 14 more jobs were added to the sample without regard to the plan, making a total sample of 414 jobs. The additional 14 jobs are marked by an asterisk in Appendix B.

from the appropriate categories of the detailed list of occupations presented by the Bureau of the Census (U. S. Department of Commerce, 1963, Table 201). The appropriate code numbers for the titles to be added were then identified in the Dictionary of Occupational Titles, and job descriptions with the appropriate or closest matching DOT numbers were located in the USES files.

The following table presents the distribution of the resulting job sample in relation to the distribution of employed people in major occupational groups.

Table [1]. Numbers and Percentages of Jobs Drawn from Major Occupational Groups of the U. S. Bureau of Labor Statistics[a]

Occupational Group	Number of Jobs in the Sample	Percentage of Job Sample	Percentage of Employed People in 1970[b]
White-collar workers: Professional, technical, and kindred	57	14.25	14.2
Managers, officials, and proprietors, excluding farm	42	10.50	10.5
Clerical and kindred	70	17.50	17.4
Sales workers	25	6.25	6.2
TOTAL	194	48.50	48.3
Blue-collar workers: Craftsmen, foremen, and kindred	50	12.50	12.9
Operatives	71	17.75	17.7
Laborers, excluding farm and mine	19	4.75	4.7
TOTAL	140	35.00	35.3
Service workers: Private household workers	2	0.50	2.0
Other service workers	48	12.00	10.4
TOTAL	50	12.50	12.4
Farm workers: Farmers and farm managers	8	2.00	2.2
Farm laborers and foremen	8	2.00	1.7
TOTAL	16	4.00	3.9
GRAND TOTAL	400	100.00	99.9

[a] Taken from Riccobono and Cunningham (1974b, p. 5).

[b] Based on data published by the U. S. Bureau of Labor Statistics (1971).

(3) Procedure for Drawing the Third Sample of 600 Jobs (Present Study)

The final 600 jobs were drawn so that the cumulative sample of 1414 jobs would be proportional to the number of U. S. adult workers employed in five major occupational categories. Each of the categories subsumed either one or several of the ten major occupational categories of the DOT (U. S. Department of Labor, 1965) and the corresponding categories of the U. S. Census (U. S. Department of Commerce, 1973). It is not assumed that there is a one-to-one correspondence among the two sets of categories, but the degree of overlap appears to be high. The major categories of this study were (1) Professional, technical, and managerial occupations, (2) Clerical and sales occupations, (3) Service occupations, (4) Farming, fishery, forestry, and related occupations, and (5) Operatives, skill trades, and related occupations. The related DOT categories had identical titles for the first four categories, while the fifth category subsumed the following five DOT categories: Processing occupations, Machine trades occupations, Bench work occupations, Structural work occupations, and Miscellaneous occupations. The U. S. Census categories subsumed under each of the five major categories in this study were: (1) Professional, technical, and kindred workers and Managers and administrators, except farm; (2) Sales workers and Clerical and kindred workers; (3) Service workers, except private household and Private household workers; (4) Farmers and farm managers and Farm laborers and farm foremen; and (5) Craftsmen, foremen, and kindred workers, Operatives, except transport, Transport equipment operatives, and Laborers, except farm.

The files of the Occupational Analysis Field Center at Raleigh, North Carolina, contain approximately 80 percent of the more than 50,000 job analysis schedules used in the development of the 13,845 base and defined related titles of the Dictionary of Occupational Titles (U. S. Department of Labor, 1965). These files probably represent the most comprehensive source of job analysis information in the country. The procedure used in drawing job analysis schedules from these files required that jobs with specific code numbers in the 1966 DOT Supplement be selected and then sought in the files. However, three constraints limited the randomness of the drawing. First, a job schedule in the files describes a job as it exists in a given organization, while a DOT code number listed in the 1966 DOT Supplement represents a composite of more than one of these schedules; thus, there is not a one-to-one correspondence between the jobs selected and the job analysis schedules in the file. Secondly, the files had already been searched by the above procedures for the previous 814 jobs. Thirdly, the files did not contain all of the job analysis schedules that were used in the development of the DOT. Despite these constraints, however, the total sample of 1414 jobs is quite heterogeneous and should be reasonably representative of the work domain.

Determining the Jobs To Be Selected from Each of the Five Categories

The steps that were followed in determining the jobs to be selected from each of the five major categories are listed below:

1. A count was made of the number of jobs in each category in the combined sample of 814 jobs (i.e., the jobs in the first two samples combined).

2. The number of jobs that should be in each of the five categories for the total sample of 1414 jobs was calculated by multiplying that total by the proportion of workers employed in each category, as reported by the U. S. Department of Commerce (1973).

3. The number of jobs to be drawn in each category was equal to the number determined in step 2 above minus the number already in that category in the sample of 814 jobs.

4. For each of the five major categories, the number of pages covering that category in the 1966 DOT Supplement was counted.

5. The number of jobs to be selected from each page was determined by dividing the number of jobs to be selected in a specified category by the number of pages covering that category. Fractions of a job per page were cumulated, and an extra job was drawn on pages where the cumulation reached one.

6. Jobs already selected for the sample of 814 were marked on the pages and thereby eliminated from repeated selection.

7. The appropriate number of jobs representative of each page was selected by inspection to reduce any bias that might have resulted from the previous selection procedures. Greater emphasis was placed on the worker function component of the DOT code number than on the occupational organization component, since the reverse emphasis existed in the drawing of the two original samples (i.e., the two samples comprising the total of 814 jobs).

Drawing of Job Analysis Schedules Based on Selected Jobs

It has been pointed out that all titles and codes selected from the 1966 DOT Supplement did not exist in the files of the Occupational Analysis Field Center. Therefore, judgment was required in drawing job analysis schedules that fulfilled the requirements of the study. If only one fully detailed job analysis schedule with the appropriate DOT code number and title existed, it was drawn. If several existed, the most detailed schedule was drawn. If several very detailed schedules existed, a schedule was selected that seemed most dissimilar to the schedules already drawn. Needless to say, this procedure introduced a subjective bias into the sample, but a purely objective procedure did not seem feasible. In the case where a schedule with the selected DOT code number and title did not exist, the schedule most highly related to the selected job was drawn using the same subjective criterion stated above.

APPENDIX B

LIST OF JOBS COMPRISING THE TOTAL SAMPLE OF 1414

(1) Sample from Riccobono and Cunningham (1974a): Jobs 1-400

(2) Sample from Riccobono and Cunningham (1974b): Jobs 401-822*

(3) Jobs Selected in the Present Study: Jobs 823-1422*

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*Although the job identification numbers range from 1 to 1422, eight jobs were omitted, leaving a total of 1414. The identification numbers of the omitted jobs were: 760, 734, 736, 737, 739, 746, 818, and 819.

(1) Sample from Riccobono and Cunningham (1974a): Jobs 1-400

ID	DOT Code	Job Title
Occupations in Architecture and Engineering (00-01)		
1.	002.081	Maintainability Design Engineer (aerospace)
2.	003.081	Electronic Engineer (profess. & kin.)
3.	007.081	Tool Designer (aerospace)
4.	010.168	Production Engineer (petrol. production)
5.	011.281	Spectroscopist (profess. & kin.)
6.	012.188	Material Scheduler (aircraft mfg.)
7.	015.081	Nuclear Engineer (profess. & kin.)
8.	017.281	Draftsman, Detail (profess. & kin.)
9.	018.188	Surveyor (profess. & kin.)
Occupations in Mathematics and Physical Sciences (02)		
10.	022.081	Chemist, Organic (profess. & kin.)
11.	024.081	Hydrologist (profess. & kin.)
12.	029.281	Laboratory Tester I (any ind.)
Occupations in Life Sciences (04)		
13.	040.081	Microbiologist (profess. & kin.)
14.	041.281	Lab Technician, Microbiology
Occupations in Social Sciences (05)		
15.	050.088	Market-Research Analyst I (profess. & kin.)
Occupations in Medicine and Health (07)		
16.	074.181	Pharmacist (profess. & kin.)
17.	075.378	Nurse, General Duty (medical ser.)
18.	078.368	Bio-Instrumentation Technician
19.	079.178	Physical Therapist (medical ser.)
Occupations in Education (09)		
20.	090.228	Faculty Member, College or University (education)
21.	091.118	Superintendent, Schools (education)
Occupations in Museum, Library, and Archival Sciences (10)		
22.	102.168	Curator, Natural History Museum (museum)
Occupations in Law and Jurisprudence (11)		
23.	119.288	Policy Technician (profess. & kin.)
Occupations in Writing (13)		
24.	132.038	Editor, Sports (print. & pub.)
25.	139.168	Technical Reporting Analyst (aircraft mfg.)

Occupations in Art (14)

26.	141.081	Illustrator (profess. & kin.)
27.	142.081	Cloth Designer (profess. & kin.)
28.	143.382	Photographer, Finish (amuse. & rec.)

Occupations in Entertainment and Recreation (15)

29.	152.048	Bugler (amuse. & rec.)
30.	153.168	Racing Secretary and Handicapper (amuse. & rec.)
31.	159.228	Instructor, Bridge

Occupations in Administrative Specializations (16)

32.	160.188	Accountant (profess. & kin.)
33.	162.158	Buyer, Livestock (ret. tr.; slaught. & meat pack.; whole. tr.)
34.	163.118	Manager, Sales (any ind.)
35.	166.168	Personnel Representative (air trans.)
36.	166.168	Coordinator, Personnel Services (any ind.)
37.	169.168	Administrative Assistant (any ind.)

Managers and Officials, N.E.C. (18)

38.	180.118	Production Superintendent (wood preserv.)
39.	184.168	Superintendent, Tests (light, heat, & power)
40.	184.168	Manager, Warehouse (any ind.)
41.	185.168	Manager, Store (ret. tr.)
42.	186.118	Controller (profess. & kin.)
43.	187.168	Executive Housekeeper (hotel & rest.)
44.	187.168	Manager, Catering (hotel & rest.)
45.	188.118	Commissioner, Public Utilities (gov. ser.)
46.	189.118	Manager, Industrial Organization (any ind.)

Miscellaneous Professional, Technical, and Managerial Occupations (19)

47.	193.282	Radio Operator (light, heat, & power)
48.	196.168	Chief Pilot (air trans.)
49.	198.168	Conductor, Passenger Car (r.r. trans.)
50.	199.281	Gemologist (jewelry)

Stenography, Typing, Filing, and Related Occupations (20)

51.	204.288	Correspondence Clerk (clerical)
52.	208.588	Transcribing-Machine Operator (clerical)
53.	209.138	Agency Appointments Supervisor (insurance)

Computing and Account-Recording Occupations (21)

54.	210.388	Bookkeeping-Machine Operator I (clerical)
55.	211.468	Ticket Seller (clerical)

56.	213.582	Payroll Clerk (hosiery)
57.	216.488	Calculating-Machine Operator (clerical)
58.	219.368	Collection Clerk

Material and Production Recording Occupations (22)

59.	221.388	Production Clerk II (clerical)
60.	222.388	Label Processor
61.	222.587	Shipping Clerk II (clerical)
62.	222.588	Traffic Clerk (clerical)
63.	223.387	Stock Clerk (clerical)
64.	223.588	Tallyman (clerical)
65.	224.487	Weigher II (clerical)
66.	229.588	Ticketer (textile)

Information and Message Distribution Occupations (23)

67.	236.588	Telegrapher (r.r. trans.)
68.	239.138	Meter Reader, Chief (light, heat, & power; waterworks)

Miscellaneous Clerical Occupations (24)

69.	240.138	Credit Supervisor (finan. inst.)
70.	249.368	Order Clerk II (clerical)
71.	249.388	Authorizer, Regular Accounts (clerical)

Salesmen, Services (25)

72.	257.258	Representative, Personal Service (tel. & tel.)

Salesmen and Salespersons, Commodities (26, 27, 28)

73.	263.358	Salesperson, Men's Furnishings (ret. tr.)
74.	276.358	Salesman, Building and Construction, Equipment and Supplies (whole. tr.)
75.	283.458	Silver Saleslady (ret. tr.)
76.	289.358	Salesperson, Book (ret. tr.)

Merchandising Occupations, Except Salesmen (29)

77.	290.468	Groceryman, Journeyman (ret. tr.)
78.	298.081	Display Man (ret. tr.)
79.	299.868	Checker, Fitting Room (ret. tr.)

Food and Beverage Preparation and Service Occupations (31)

80.	313.381	Cook (hotel & rest.)
81.	314.878	Combination Girl (hotel & rest.)
82.	316.884	Meat Cutter (whole. tr.)

Lodging and Related Service Occupations (32)

83.	321.138	Housekeeper (hotel & rest.)
84.	329.874	Dock Attendant (water trans.)

Barbering, Cosmetology, and Related Service Occupations (33)

85.	332.271	Hair Stylist (per. ser.)

Amusement and Recreation Service Occupations (34)

86.	344.878	Press Box Custodian (amuse. & rec.)
87.	349.368	Receiving Barn Custodian (amuse. & rec.)

Miscellaneous Personal Service Occupations (35)

88.	355.878	Nurse Aide (medical ser.)
89.	359.868	Housemother (per. ser.)

Apparel and Furnishings Service Occupations (36)

90.	361.687	Assembler, Wet Wash (laundry)
91.	363.887	Glove Former (clean, dye & press; glove & mit)
92.	369.782	Starchwork Folder (laundry)

Protective Service Occupations (37)

93.	372.168	Guard, Captain (ret. tr.)
94.	372.368	Watchman I (any ind.)
95.	376.868	House Officer (hotel & rest.)

Building and Related Service Occupations (38)

96.	389.887	Light Cleaner (textile)

Plant Farming Occupations (40)

97.	403.887	Farm Hand, Vegetable II (agric.)
98.	404.883	Farm Hand (agric.)
99.	406.181	Grass Farmer (agric.)

Animal Farming Occupations (41)

100.	412.864	Egg Room Supervisor (agric.)
101.	419.883	Feeder (agric.)

Miscellaneous Farming and Related Occupations (42)

102.	421.883	Farm Hand, General (agric.)

Fishery and Related Occupations (43)

103.	431.884	Fisherman (Purse Seine) (fish.)

Forestry Occupations (44)

104.	441.384	Forester Aide (gov. ser.)

Agricultural Service Occupations (46)

105.	466.887	Livestock Caretaker, Yard-Or-In-Transit (any ind.)

Occupations in Processing of Metal (50)

106.	501.885	Plater (pen and pencil)
107.	502.130	Foreman, Plate Manufacturing (elec. equip.)
108.	504.885	Induction-Machine Operator (heat treat.)
109.	505.887	Production Operator (nickle plate)
110.	509.885	Process Equipment Operator (aircraft)

Ore Refining and Foundry Occupations (51)

111.	512.782	Furnace Operator (found., iron & steel)
112.	512.885	First Helper, Electric Furnace (found.)
113.	514.687	Casting Inspector (found.)
114.	515.885	Thimble Press Operator (ore. dress., smelt. & refin.)
115.	518.687	Core Labor; pilar (found.)
116.	519.887	Foundry Worker, General (found.)

Occupations in Processing of Food, Tobacco, and Related Products (52)

117.	520.885	Dividing-Machine Operator (bake. prod.)
118.	520.885	Chipping Machine Operator (slaught. & meat pack.)
119.	520.885	Mixer, Dry-Food Products (can. & preserv.)
120.	520.887	Seasoning Mixer (slaught. & meat pack.)
121.	521.885	Centrifuge Operator (can. & preserv.)
122.	521.885	Egg-Breaking Machine Operator (slaught. & meat pack.)
123.	521.885	Meat Grinder (slaught. & meat pack.)
124.	521.885	Sorting-Machine Operator (can. & preserv.)
125.	521.885	Crushing-Machine Operator (vinous liquors)
126.	522.782	Masher (malt liquors)
127.	522.887	Leadman (can. & preserv.)
128.	523.885	Ice Maker (ice)
129.	523.885	Blanching-Machine Operator (can. & preserv.)
130.	524.885	Icer, Machine (bake. prod.)
131.	525.884	Fish Cleaner (can. & preserv.; fish.)
132.	525.884	Egg Puller (can. & preserv.)
133.	526.782	Cook, Kettle (can. & preserv.)
134.	529.132	Chief, Feed Mill (feed & grain mill)
135.	529.687	Sorter, Agricultural Produce (agric.; can. & preserv.; whole. tr.)

136.	529.782	Dairy Processing Equipment Operator (dairy prod.)
137.	529.885	Noodle Maker (macaroni & rel. prod.)
138.	529.885	Washer, Agricultural Produce (can. & preserv.)
139.	529.887	Laborer (slaught. & meat pack.)

Occupations in Processing of Paper and Related Materials (53)

140.	533.782	Bleacher Man, Pulp (paper & pulp)
141.	534.885	Paraffiner Operator (paper goods)
142.	539.782	Foundrinier-Machine Tender (paper & pulp)

Occupations in Processing of Petroleum, Coal, Natural and Manufactured Gas, and Related Products (54)

143.	541.885	Screenman (coke prod.)
144.	544.885	Breaker Tender (coke prod.)
145.	549.132	Paste Plant Shift Foreman (ore dress., smelt & refin.)

Occupations in Processing of Chemicals, Plastics, Synthetics, Rubber, Paint, and Related Products (55)

146.	550.782	Banbury-Mixer Operator (any ind.)
147.	550.884	Dye Weigher (any ind.)
148.	550.884	Finish Mixer (textile)
149.	551.885	Extractor Operator, Solvent Process (chem.; wood distil. & charc.)
150.	551.885	Centrifuge Operator (paint. & varn.)
151.	552.885	Batch-Still Operator I (agric.)
152.	553.885	Ammonium-Nitrate Crystallizer (explosives)
153.	553.885	Flaker Operator (chem.)
154.	553.885	Drier Operator (glue)
155.	554.782	Coater (drug prep. & related prod.)
156.	555.885	Scratcher Tender (linoleum)
157.	556.782	Compressor (drug prep. & rel. prod.; salt prod.)
158.	556.885	Injection-Molding-Machine Tender (fabric. plastic prod.)
159.	557.782	Extruder Operator (fabric. plastic prod.)
160.	558.138	Manager, Soap and Synthetics and Glycerin (soap)
161.	558.885	Twitchell Operator (chem.)
162.	559.130	Polymerization Foreman (plastics mat.)
163.	559.132	Foreman, Record Press (phonograph)
164.	559.782	Acid Maker (paper & pulp)
165.	559.782	Chemical Operator III (chem.)
166.	559.885	Frame Stripper (soap)
167.	559.885	Tank Farm Attendant (chem.)
168.	559.885	Dope-Dry-House Operator (explosives)

Occupations in Processing of Wood and Wood Products (56)

169.	561.782	Treating Engineer (wood preserv.)
170.	569.885	Glue Spreader, Veneer (veneer & plywood)

Occupations in Processing of Stone, Clay, Glass, and Related Products (57)

171.	570.885	Tubemill Operator (cement)
172.	573.782	Kiln Burner (brick & tile)
173.	574.782	Spray-Machine Operator (pottery & porc.)
174.	575.380	Semiconductor Technician (press set-up)
175.	575.887	Ram Press Operator Helper (pottery & porc.)
176.	579.687	Selector (glass mfg.)
177.	579.885	Silver Stripper, Machine (mirror)

Occupations in Processing of Leather, Textiles, and Related Products (58)

178.	580.885	Hat-Blocking-Machine Operator (hat & cap)
179.	581.885	Tumbler Tender (hosiery; knit goods; tex. prod., n.e.c.)
180.	582.885	Cloth Bleaching-Range Middleman (textile)
181.	582.885	Conditioner Tender (textile; hosiery)
182.	582.886	Raw-Stock Tubman (textile)
183.	583.885	Brim-And-Crown Presser (hat & cap)
184.	583.886	Glove Turner and Former, Automatic (glove & mit)
185.	584.885	Glue-Spreading-Machine Operator (leather products)
186.	585.885	Trimmer (knit goods)
187.	587.885	Duster (hat & cap)
188.	589.137	Cloth Finisher I (textile)
189.	589.885	Boarding-Machine Operator (hosiery)

Processing Occupations, N. E. C. (59)

190.	590.132	Foreman (candle)
191.	590.885	Firer (electronics)
192.	599.885	Impregnating Tank Operator I (any ind.)

Metal Machining Occupations (60)

193.	600.380	Machine Set-Up Operator (mach. shop)
194.	601.280	Tool-And-Die Maker (mach. shop)
195.	603.782	Honing Machine Set-Up Operator, Tool (mach. shop)
196.	603.782	Grinder Set-Up Operator, External (mach. shop)
197.	604.280	Turret-Lathe-Set-Up Operator, Tool (mach. shop)
198.	605.782	Broaching Machine Set-Up Operator (mach. shop)
199.	606.280	Boring-Mill Set-Up Operator, Horizontal (mach. shop)
200.	607.782	Extrusion Saw Operator (struct. & ornam. metalwork)
201.	609.782	Balancing-Machine Operator (any ind.)

Metalworking Occupations, N. E. C. (61)

202.	611.782	Pressman (forging)
203.	613.885	Silversmith Helper
204.	614.886	Die Head Man; Die Header (struct. & ornam. metalwork)
205.	615.782	Punch-Press Operator I (any ind.)

206.	615.885	Shear Operator II (any ind.)
207.	616.130	Shift Foreman, Specialty Manufacturing (iron & steel)
208.	617.885	Punch-Press Operator II (any ind.)
209.	619.380	Fabricator A-Cutting Department (any ind.)
210.	619.885	Four Slide Machine Operator (any ind.)

Mechanics and Machinery Repairman (62, 63)

211.	620.281	Automobile Mechanic (auto ser.)
212.	621.131	Foreman, Production Department (aerospace)
213.	623.281	Boat Mechanic (water trans.)
214.	628.884	Reed Man (textile)
215.	629.281	Powder-Line Repairman (explosives)
216.	630.781	Propellant-and-Gas Mechanic (aircraft mfg.)
217.	633.281	Scale Mechanic (any ind.)
218.	638.281	Millwright (any ind.)
219.	639.281	Sewing-Machine Repairman (any ind.)

Paperworking Occupations (64)

220.	640.885	Corner Cutter (paper goods)
221.	641.885	Sealing-Machine Operator (paper goods)
222.	649.780	Bag Machine Adjuster (paper goods)

Printing Occupations (65)

223.	651.782	Flexographic Pressman I (print. & pub.)
224.	652.887	Wallpaper-Printer Helper (wallpaper)
225.	653.782	Folding-Machine Operator (print. & pub.)
226.	654.782	Ludlow-Machine Operator (print. & pub.)

Wood Machining Occupations (66)

227.	661.281	Patternmaker, Wood (found.)
228.	663.885	Veneer Clipper (veneer & plywood)
229.	665.782	Dovetail Machine Operator (woodworking)
230.	667.782	Gang Sawyer (sawmill)
231.	667.885	Cut-Off Sawyer Log (paper & pulp; sawmill)
232.	668.782	Profile-Shaper Operator, Automatic (woodworking)
233.	669.130	Foreman (mort. goods)

Occupations in Machining Stone, Clay, Glass, and Related Materials (67)

234	673.885	Blocker, Automatic (glass mfg.; mirror)
235.	677.782	Sawman (asbestos prod.)

Textile Occupations (68)

236.	680.885	Drawing-Frame Tender (textile)
237.	681.887	Utility Man (Preparation Winding) (textile)
238.	682.885	Spinner, Frame (asbestos prod.; textile)

239.	683.782	Weaver, Narrow Fabrics (asbestos prod.; narrow fabrics)
240.	685.780	Threader (knit goods; tex. prod., n.e.c.)
241.	686.885	Strip-Cutting-Machine Operator (any ind.)
242.	689.885	Braiding-Machine Operator (asbestos products; narrow fabrics)
243.	689.885	Garnetter (felt goods; house furn.; matt. & bedsprings; waste & batting)
244.	689.887	Creeler (any ind.)

Machine Trades Occupations, N. E. C. (69)

245.	690.782	Stitcher, Special Machine (boot & shoe)
246.	690.885	Assembly-Press Operator (any ind.)
247.	690.885	Electrical Assembler (coin mach.)
248.	690.885	Filler (boot & shoe)
249.	691.885	Armoring-Machine Operator (insulated wire)
250.	692.280	Maintenance Mechanic, Wire Department (electronics)
251.	692.885	Dynamite-Cartridge Crimper (explosives)
252.	692.885	Assembler Machine Operator
253.	692.885	Stapling-Machine Operator (any ind.)
254.	693.381	Model Maker I (aircraft mfg.)
255.	699.887	Oiler I (any ind.)

Occupations in Fabrication, Assembly, and Repair of Metal Products, N. E. C. (70)

256.	700.884	Polisher (jewelry)
257.	703.687	Water Tester (Can Tester) (tinware)
258.	704.887	Chemical-Milling Scriber (aircraft mfg.)
259.	705.884	Finisher (silverware)
260.	706.381	Precision Assembly Mechanic (aircraft)
261.	706.884	Vending Machine Assembler (coin mach.)
262.	709.281	Spar Mechanic (ship & boat bldg. & rep.)
263.	709.884	Tube Finisher and Assembler "A" (aircraft mfg.)

Occupations in Fabrication and Repair of Scientific and Medical Apparatus, Photographic and Optical Goods, Watches and Clocks, and Related Products (71)

264.	710.131	Assembly Foreman (inst. & app.)
265.	710.884	Solderer (inst. & app.)
266.	710.884	Instrument Assembler (inst. & app.)
267.	711.884	Polisher, Hand (inst. & app.)
268.	712.281	Dental Ceramist (medical ser.)
269.	712.381	Dental Laboratory Technician (medical ser.)
270.	712.884	Metal Finisher (medical ser.)
271.	712.887	Assembler
272.	714.281	Maintenance Man, Factory or Mill (any ind.)
273.	716.781	Assembler, Suspension Component "A"
274.	716.884	Assembler (electronics)
275.	716.884	Electronic-Sensing-Equipment Assembler (inst. & app.)
276.	716.884	Instrument Adjuster (inst. & app.)

Occupations in Assembly and Repair of Electrical Equipment (72)

277.	721.884	Heavy Assembler (elec. equip.)
278.	723.132	Factory Supervisor (light. fix.)
279.	724.884	Inspector, Finished Goods (coin mach.)
280.	725.281	Tailor II (ret. tr.)
281.	726.884	Boat Loader (electronics)
282.	726.884	Semiconductor Assembler (electronics)
283.	727.887	Paraffin Tank Operator (elec. equip.)
284.	728.884	Bench Assembler (coin mach.)
285.	729.387	Checker and Tester (elec. equip.)

Occupations in Fabrication and Repair of Products Made From Assorted Materials (73)

286.	731.885	Assembler V (tire setter, car) (toys & games)
287.	732.884	Bracket Mounter (sports equip.)
288.	732.884	Formica Trim Assembler (sports equip.)
289.	732.887	Coverer Helper (sports equip.)
290.	733.130	Foreman, Plating and Point Assembly (pen & pencil)
291.	733.137	Foreman, Refill Assembly (pen & pencil)
292.	733.381	Typesetter (pen & pencil)
293.	733.887	Seal Press Assembler (pen & pencil)
294.	734.884	Button Maker (furn.)
295.	735.884	Bead Stringer (jewelry)
296.	735.887	Stone Setter (jewelry)
297.	739.687	Inspector-Packer (match)
298.	739.884	Assembler, Metal Furniture (furn.)
299.	739.887	Assembler, Small Products (any ind.)
300.	739.887	Gluer II (any ind.)

Painting, Decorating, and Related Occupations (74)

301.	740.884	Decorator (pottery & porc.)
302.	749.884	Putty Glazer (any ind.)

Occupations in Fabrication and Repair of Plastics, Synthetics, Rubber, and Related Products (75)

303.	750.887	Tire Mounter (fabric. prod., n.e.c.)
304.	751.887	Receiving Clerk, Plastics (tex. prod., n.e.c.)
305.	752.884	Bit Bender (smoking pipe)
306.	754.884	Grinder (ship & boat bldg. & rep.)
307.	759.384	Emergency Equipment Repairman (air trans.)

Occupations in Fabrication and Repair of Wood Products (76)

308.	761.887	Sander, Hand (woodworking)
309.	762.884	Glueman (woodworking)
310.	763.884	Frame Maker (furn.)
311.	764.887	Firetender (cooperage)
312.	769.687	Inspector-Packer

Occupations in Fabrication and Repair of Sand, Stone, Clay, and Glass Products (77)

313.	770.281	Top Brilliandeer; Bottom Brilliandeer (jewelry)
314.	774.384	Finish Inspector-Instructor (pottery & porc.)
315.	775.687	Mirror Inspector, Face Cleaner Tailer and Examiner (mirror)
316.	777.381	Patternmaker, Plaster (aircraft mfg.)
317.	779.883	Power-Shovel Operator (any ind.)

Occupations in Fabrication and Repair of Textile, Leather, and Related Products (78)

318.	780.884	Cushion Man (furn.)
319.	780.884	Upholsterer II (furn.)
320.	781.381	Patternmaker (garment)
321.	781.884	Rug Clipper (carpet & rug)
322.	782.884	Hosiery Mender (hosiery; per. ser.)
323.	784.884	Braided Band Assembler (hat & cap)
324.	784.887	Powderer (hat & cap)
325.	785.138	Supervisor Alteration Workroom (ret. tr.)
326.	786.782	Sewing Machine Operator, Regular Equipment (garment)
327.	787.782	Binder II (any ind.)
328.	787.782	Brim-Welt-Sewing-Machine Operator (hat & cap)
329.	787.782	Edger (glove & mit; leather prod.; textile)
330.	787.782	Hemmer (any ind.)
331.	788.885	Edge Shaper (boot & shoe)
332.	788.885	Bottom Ironer, Machine (boot & shoe)
333.	788.887	Tapes Top Line of Quarters (boot & shoe)
334.	789.687	Inspector (fabric. tex. prod.)
335.	789.887	Sample Serviceman (carpet & rug)
336.	789.887	Sample Girl (carpet & rug)

Bench Work Occupations, N. E. C. (79)

337.	794.281	Assistant Product Development Man (paper goods)
338.	799.381	Upholsterer (ship & boat bldg. & rep.)

Occupations in Metal Fabricating, N. E. C. (80)

339.	801.381	Aircraft Mechanic, Rigging and Controls (aircraft mfg.)
340.	804.281	Sheet-Metal Worker (found.)
341.	806.781	Air-Conditioning Installer, General (aircraft mfg.)
342.	806.884	Engine Assembler
343.	807.381	Inspector, Fabrication (aircraft mfg.)
344.	809.131	Yard Superintendent (ship & boat bldg. & rep.)

Welders, Flame Cutters, and Related Occupations (81)

345.	814.884	Can Solderer (electronics)
346.	819.381	Welder (welding)

Electrical Assembling, Installing, and Repairing Occupations (82)

347.	821.885	Bread Chopper (can. & preserv.)
348.	822.131	Senior Communications Electrician (light, heat, & power)
349.	825.281	Aircraft Mechanic, Electrical (aircraft mfg.)
350.	827.384	Cooling-Tank Tester (agric. equip.)
351.	828.281	Electrician A (mach. shop)
352.	829.884	Electrician Helper (any ind.)

Painting, Plastering, Waterproofing, Cementing, and Related Occupations (84)

353.	840.781	Painter, Maintenance (any ind.)
354.	842.884	Ceiling Man (trans. equip.)

Excavating, Grading, Paving, and Related Occupations (85)

355.	850.883	Scraper Operator (any ind.)
356.	851.884	Pipe Layer (const.)
357.	859.883	Operating Engineer II (const.)
358.	859.887	Jackhammer Operator (const.)

Construction Occupations, N. E. C. (86)

359.	860.887	Carpenter Helper, Maintenance (any ind.)
360.	861.381	Bricklayer Helper
361.	861.381	Lip-and-Gate Builder and Oiler Maintenance Man (glass mfg.)
362.	862.381	Pipe Fitter, Maintenance (any ind.)
363.	862.884	Soft-Water Serviceman (bus. ser.)
364.	864.781	Carpenter-Floor Rolling (trans. equip.)
365.	869.134	Foreman (Finish Flooring) (trans. equip.)
366.	869.884	Utility Man (Flooring) (trans. equip.)

Structural Work Occupations, N. E. C. (89)

367.	899.884	Maintenance-Man Helper, Factory or Mill (any ind.)

Motor Freight Occupations (90)

368.	909.883	Truck Driver (any ind.)

Transportation Occupations, N. E. C. (91)

369.	910.884	Switchman
370.	911.873	Dockmaster (water trans.)
371.	913.883	Chauffeur (any ind.)
372.	914.885	Soapery Pumper (any ind.)
373.	915.137	Car Wash Supervisor (auto. ser.)
374.	919.883	Routeman (bus. ser.)

Packaging and Materials Handling Occupations (92)

375.	920.885	Packager, Machine (any ind.)
376.	920.885	Filling-Machine Operator (any ind.)
377.	920.886	Labeler (carpet & rug)
378.	920.887	Shipping Processor (aircraft mfg.)
379.	921.883	Fork-Lift-Truck Operator (any ind.)
380.	921.883	Locomotive Crane Operator (any ind.)
381.	922.487	Warehouseman (dairy prod.)
382.	922.887	Laborer, Stores (any ind.)
383.	929.883	Grain Elevator Man (grain & feed mill)
384.	929.887	Material Handler (whole. tr.)

Occupations in Extraction of Minerals (93)

385.	939.131	Production Foreman (petrol. prod.)
386.	939.782	Playback Operator (petrol. prod.)
387.	939.782	Panelboard Operator (mining & quarrying; ore dress.; smelt.; & refin.)

Occupations in Logging (94)

388.	941.488	Log Scaler (logging; veneer & pulp; and sawmill)
389.	942.883	Log Stacker Operator (sawmill)

Occupations in Production and Distribution of Utilities (95)

390.	950.782	Stationary Engineer (any ind.)
391.	952.262	Crew Leader-Power House (any ind.)
392.	957.288	Field Engineer (electronics)
393.	959.387	Patrolman (light, heat, & power)

Amusement, Recreation, and Motion Picture Occupations, N. E. C. (96)

394.	960.382	Quality Control Projectionist (photo. process. & finish.)
395.	969.687	Film Inspector I (motion pict.)

Occupations in Graphic Art Work (97)

396.	970.381	Checker-Packager (photo. process. & finish.)
397.	971.381	Screen Maker, Photographic Process (any ind.)
398.	973.381	Collator
399.	976.884	Slitter, Processed Film (any ind.)
400.	979.381	Copy Camerman (any ind.)

(2) Sample from Riccobono and Cunningham (1974b): Jobs 401-822

	DOT Code	Title of Occupation
401	205.368	Personnel Clerk
402	003.181	Electronic Technician
403	205.388	Licensing Clerk
404	001.281	Draftsman, Mechanical
405	206.388	Classification Clerk
406	008.081	Chemical Engineer
407	011.281	Metallurgical Technologist
*408	011.181	Metallurgical Technician
409	207.782	Multilith Operator
410	012.168	Systems Analyst, Business-Electronic-Data Processing
411	249.268	Survey Worker
412	019.281	Engineering Aid II
413	020.088	Mathematician
414	020.188	Programmer, Business
415	020.188	Programmer, Engineering and Scientific
416	040.188	Forester
417	041.081	Biologist
418	045.088	Psychologist
419	054.088	Sociologist
420	070.108	General Practitioner
421	072.108	Dentist
422	073.108	Veterinarian
423	077.168	Dietitian
424	078.368	Dental Hygienist
425	078.368	Radiologic Technologist
426	078.381	Medical Laboratory Assistant
427	078.381	Medical Technologist
428	079.128	Occupational Therapist
429	079.368	Occupational Therapy Aid
430	079.368	Psychiatric Technician

	DOT Code	Title of Occupation
431	079.368	Inhalation Therapist
432	079.368	Medical Assistant
433	079.378	Nurse, Licensed Practical
434	079.378	Surgical Technician
435	079.378	Dental Assistant
436	091.228	Teacher, Secondary School
437	100.168	Head Catalog Librarian
438	142.081	Clothes Designer
439	159.228	Camp Counselor
440	163.118	Manager, City Circulation
441	166.088	Job Analyst
442	168.268	Credit Man
443	169.188	Underwriter (insurance)
444	169.268	Unemployment Insurance Claims Administrator
445	185.168	Proprietor-Manager, Retail Automotive Service
446	185.168	Manager, Retail Food Store
447	338.381	Embalmer
448	187.168	Manager, Cafeteria or Lunchroom
449	187.168	Manager, Theater
450	193.168	Air-Traffic Control Specialist, Tower
451	195.108	Case Worker
452	202.388	Stenographer
453	205.368	Employment Clerk
454	206.388	File Clerk II (warehouse)
455	207.782	Offset-Duplicating Machine Operator
456	208.588	Typesetter-Perforator Operator
457	209.588	Encoder (banking)
458	209.688	Checker II
459	209.688	Proofreader I
460	210.388	Audit Clerk
461	210.388	Bookkeeper I
462	212.368	Teller
463	213.382	Digital-Computer Operator

	DOT Code	Title of Occupation
464	213.582	Key Punch Operator
465	213.782	Tabulating-Machine Operator
466	217.388	Proof-Machine Operator (banking)
467	219.388	General Office Clerk
468	219.388	Ward Clerk (medical service)
469	219.878	Fountain Girl
470	220.168	Material Coordinator
471	209.388	Proofreader
472	224.487	Weighing-Station Operator
473	209.588	Telephone Order Dispatcher
474	234.782	Mailing-Machine Operator
475	235.782	Telephone Operator
476	235.862	Telephone Answering Service Operator
477	241.168	Claims Adjuster
478	242.368	Hotel Clerk
479	250.358	Salesman, Real Estate
480	276.358	Salesman, Construction Machinery
481	289.358	Salesperson, Automotive Parts
482	289.458	Salesperson, General
483	290.478	Sales Clerk
484	292.358	Bakery-Wagon Driver
485	292.358	Routeman, Retail Dairy Products
486	292.358	Routeman, Wholesale Ice Cream Products
487	299.458	Grocery Checker
488	317.878	Countergirl
489	311.878	Waitress
490	311.878	Waitress II (medical service)
491	317.884	Food Service Worker II
492	330.371	Barber
493	332.271	Cosmetologist
494	355.878	Cottage Parent
495	355.878	Psychiatric Aid
496	359.878	Teacher, Nursery School

	DOT Code	Title of Occupation
497	361.687	Classifier (laundry)
498	363.884	Presser, Hand
499	363.886	Flatwork Finisher (laundry)
500	372.868	Corrections Officer
501	373.884	Fire Fighter
502	375.268	Patrolman
503	379.168	Fish and Game Warden
504	381.887	Building Custodian
505	389.884	Exterminator
506	404.887	Harvest Hand, Citrus Fruit
507	467.384	Artificial-Breeding Technician
508	509.886	Laborer, General (iron and steel)
509	209.688	Checker I
510	514.885	Die-Casting-Machine Operator
511	518.381	Floor and Bench Molder (foundry)
512	518.883	Sand-Slinger Operator (foundry)
513	210.368	Insurance Clerk (medical service)
514	521.887	Peanut Sorter
515	210.388	Billing-Control Clerk (light, heat, and power)
516	524.381	Laborer, Bakery
*517	210.388	Bookkeeper I
518	526.781	Baker
519	211.468	Cashier I
520	529.687	Egg Candler
521	211.468	Cashier-Wrapper
522	212.138	Head Teller
523	529.886	Cannery Worker
524	213.382	Card-Tape Machine Operator "A"
525	214.488	Billing Machine Operator
526	216.588	Food Tabulator, Cafeteria
527	217.388	Transit Clerk (banking)
528	219.138	Time Keeper, Chief (foundry)
529	219.388	Mail Desk Clerk

	DOT Code	Title of Occupation
530	542.280	Stillman (petroleum refinery)
531	553.782	Autoclave Operator
532	556.885	Compression-Molding Machine Tender
533	556.885	Injection-Molding Machine Operator
534	556.885	Record-Press Tender
535	559.782	Pilot-Control Operator (chemistry; plastic material)
536	219.388	Airport Clerk
537	219.488	Invoice-Control Clerk
538	573.687	Sorter (brick and tile)
539	575.380	Forming-Machine Upkeep Man (glass manufacturing)
540	590.884	Processor, Solid Propellant
541	600.280	Machinist I
542	609.885	Production-Machine Operator
543	221.168	Production Clerk, Paperboard Products
544	613.782	Manipulator (rolling mills)
545	614.782	Wire Drawer
546	615.782	Punch-Press Operator
547	616.380	Welder, Pipe-Making
548	619.380	Metal Fabricator I
549	619.381	Inspector, Continuous-Weld-Pipe Mill
550	222.387	Receiving Clerk
551	223.138	Supervisor, Stock (clerical)
552	620.381	Automobile Service Station Mechanic
553	621.281	Aircraft and Engine Mechanic
554	624.281	Farm Equipment Mechanic I
555	625.281	Diesel Mechanic
556	230.878	Messenger
557	231.388	Parcel Post Clerk
558	637.281	Gas Appliance Serviceman
559	638.281	Maintenance Mechanic II
560	641.885	Box Machine Operator
561	649.687	Paper Sorter and Counter
562	235.138	Telephone Operator, Chief

	DOT Code	Title of Occupation
563	649.885	Bag Machine Operator
564	237.368	Receptionist
565	650.582	Linotype Operator
566	650.582	Monotype Keyboard Operator
567	651.782	Offset Web Press Man
568	651.782	Web Press Man (printing and publishing)
569	651.782	Printer-Slotter Operator (paper goods)
570	660.280	Cabinet Maker
571	669.782	Woodworking Machine Operator
572	675.380	Precision Lens Grinder
*573	242.368	Hotel Clerk
*574	681.885	Carding Machine Operator (textile)
575	680.885	Card Tender (asbestos product; textile)
576	681.885	Yarn Winder
577	381.887	Porter I
578	682.885	Spinner, Ring Frame (textile)
579	683.280	Loom Fixer
580	683.782	Weaver
581	683.886	Battery Loader (textile)
582	684.684	Stocking Inspector
583	684.687	Pairer (hosiery)
584	684.782	Transfer Knitter
585	684.885	Sock Knitter
586	685.885	Knitting Machine Operator
*587	689.280	Knitting Machine Fixer
588	689.684	Burler (carpet and rug; textile)
589	689.782	Looper (hosiery; knit goods)
*590	689.782	Hosiery Looper
591	252.258	Salesman, Financial Service
592	689.886	Doffer (knit goods)
593	690.782	Fancy Stitcher
594	690.782	Stitcher, Standard Machine
595	691.782	Extruding Machine Operator

	DOT Code	Title of Occupation
596	691.782	Pairing Machine Operator
597	692.380	Firesetter (electrical equipment)
598	692.885	Sealing Machine Operator
599	699.782	Die Cutter
600	700.884	Ring Stamper
601	705.884	Grinder-Chipper I (foundry)
602	706.884	Coil Winder II
603	252.358	Salesman, Trading Stamps
604	706.884	Power Lawn Mower Assembler
605	253.358	Salesman, Radio and Television Time
606	710.281	Instrument Repairman I
607	255.258	Traffic Agent (air transportation)
608	710.884	Gas-Pump-Computer Assembler
609	257.358	Salesman, Public Utilities (light, heat, and power)
610	715.381	Hairspring Vibrator (clock and watch)
611	715.687	Casing Inspector (clock and watch)
612	715.884	Oiler (clock and watch)
613	715.887	Staker (clock and watch)
614	258.358	Salesman, Advertising
615	720.281	Television Service and Repairman
616	259.358	Salesman, Soft-Water Service
617	721.884	Electric Motor Assembler
618	262.358	Salesman, Food Products
619	264.358	Salesman, Leather Products (wholesale trade)
620	265.358	Salesman, Paper and Paper Products (wholesale trade)
621	274.358	Salesman, Floor Coverings (retail trade; wholesale trade)
622	278.258	Home Service Representative (light, heat, and power)
623	286.358	Salesperson, Sporting Goods (retail trade; wholesale trade)
624	724.887	Coil Finisher (electrical equipment; electronics)
625	725.884	Grid Operator (electronics)
626	126.130	Foreman, Electrical Assemblies
627	726.384	Inspector, Subassemblies (electronics)

	DOT Code	Title of Occupation
628	291.858	Vendor (amusement and recreation)
629	726.781	Electronics Assembler
630	292.358	Salesman, Driver
631	726.884	Cable Maker (electrical equipment; electronics)
632	309.878	Homemaker (domestic service)
633	310.137	Wine Steward (hotel and restaurant)
634	726.887	Module Assembler (electronics)
635	726.887	Mounter I (electronics)
636	727.887	Battery Assembler
637	310.868	Hostess, Restaurant or Coffee Shop
638	731.887	Finisher, Hand (toys and games)
639	732.884	Fishing Rod Assembler
640	311.138	Waiter, Head
641	312.878	Bartender
642	737.887	Fireworks Assembler
643	312.887	Bar Boy
644	313.131	Chef
645	739.884	Case Coverer (jewelry cases; leather products)
646	739.884	Assembler, Metal Furniture
647	739.884	Venetian Blind Assembler
648	740.884	Decorator, Hand
649	313.781	Baker (hotel and restaurant)
650	314.381	Short Order Cook (hotel and restaurant)
651	316.781	Butcher, Head (hotel and restaurant)
652	317.884	Pantrygirl (hotel and restaurant)
653	318.138	Kitchen Steward (hotel and restaurant)
654	772.281	Glass Blower, Laboratory Apparatus
655	318.887	Silver Wrapper (hotel and restaurant)
656	319.468	Order Clerk, Food and Beverages (hotel and restaurant)
657	779.884	Fettler
658	780.381	Furniture Upholsterer
659	782.884	Seamstress
660	784.884	Hat Trimmer

	DOT Code	Title of Occupation
661	785.381	Seamstress, Women's Garment Alterations
662	787.782	Seamer
663	787.782	Glove Sewer
664	319.864	Automat-Car Attendant (railroad transportation)
665	788.887	Cementer, Hand
666	789.887	Garment Folder
667	794.887	Folder, Hand
668	323.887	Houseman (hotel and restaurant)
669	805.281	Boilermaker I
670	806.381	Shipfitter
671	806.781	Outboard Motor Assembler
672	323.887	Maid
673	324.138	Bell Captain (hotel and restaurant)
674	807.381	Automobile Body Repairman
675	329.138	Superintendent, Service (hotel and restaurant)
676	809.381	Ornamental Iron Worker
677	331.878	Manicurist (hosiery)
678	810.884	Welder, Arc
679	810.884	Welder, Gas Shielded Arc
680	812.884	Welder, Combination
681	339.878	Reducing Machine Operator (personal service)
682	344.138	Usher, Head (amusement and recreation)
683	821.381	Lineman, Repair
684	352.168	Director, Recreation (hotel and restaurant)
685	824.281	Electrician
686	801.381	Aircraft Mechanic
687	827.281	Electrical Appliance Serviceman
688	828.281	Electronics Mechanic
689	352.878	Airplane Stewardess
690	353.368	Guide, Establishment
691	356.138	Animal Keeper, Head (amusement and recreation)
692	842.781	Plasterer
693	356.874	Stableman

	DOT Code	Title of Occupation
694	860.381	Carpenter (construction)
695	861.381	Bricklayer
696	358.878	Baggageman (motor transportation)
697	862.381	Pipe Fitter, Maintenance
698	864.781	Carpenter, Floor Rolling
699	362.782	Dry Cleaner (clean, dry, and press)
700	379.868	Lifeguard
701	899.381	Maintenance Man, Building
702	401.181	Farmer, Cash Grain
703	904.883	Tractor-Trailer Truck Driver
704	912.368	Cargo Agent (air transportation)
705	915.867	Automobile Service Station Attendant
706	919.168	Dispatcher, Motor Vehicle
707	919.368	Ticket Agent
708	920.280	Packaging Machine Mechanic
709	920.687	Wrapper (laundry)
*710	920.885	Wrapping Machine Operator
*711	920.885	Container Maker-Filler-Packer Operator
712	403.181	Vegetable Grower
713	404.181	Berry Grower
714	406.181	Rose Grower
*715	920.887	Candy Packer
716	407.884	Groundskeeper
717	920.887	Celophane Wrapper, Hand
718	411.181	Dairy Farmer
719	920.887	Apple Packer
720	920.887	Garment Packer
721	411.884	Farm Hand, Dairy I
722	920.887	Sausage Packer
723	413.181	Cattle Rancher
724	413.884	Farm Hand, Livestock
725	419.884	Animal Caretaker
726	421.887	Hay Stacker

	DOT Code	Title of Occupation
727	922.883	Gasoline Truck Operator
728	922.887	Order Filler
729	429.131	Farm Foreman
730	930.884	Rotary-Driller Helper
731	952.782	Power Plant Operator
732	952.782	Substation Operator
733	421.131	Farmer, General
734	---	Omitted
735	954.782	Water Treatment Plant Operator
736	---	Omitted
737	---	Omitted
738	971.381	Stripper (printing and publishing)
739	---	Omitted
740	972.381	Transferer I (printing and publishing)
741	972.382	Photolithographer
742	973.381	Job Compositor
743	975.782	Stereotyper
744	976.782	Multiple Photographic Printer Operator
745	976.885	Mounter, Automatic
746	---	Omitted
747	222.587	Shipping Clerk II
*748	405.181	Tobacco Grower
749	040.081	Wood Technologist
750	071.108	Osteopath
751	070.108	Psychiatrist
752	045.108	Rehabilitation Counselor
753	120.108	Clergyman
754	144.081	Artist (painter)
755	152.048	Musician (instrumental)
756	130.088	Author (literary writer)
757	187.118	Executive Vice President of Chamber of Commerce
758	187.118	Recreation Supervisor
759	195.118	Social Welfare Administrator (YMCA)

	DOT Code	Title of Occupation
760	---	Omitted
761	100.168	Librarian
762	223.367	Stock Clerk
763	320.137	Motel Manager
764	092.228	Teacher, Elementary School
*765	729.884	Electrical Control Assembler
766	029.381	Chemical Laboratory Technician
767	002.081	Thermodynamics Engineer
768	002.187	Cost Analysis Engineer
769	012.168	Director, Quality Control
770	012.288	Time Study Analyst I
771	041.081	Biochemist
772	099.288	Athletic Coach
773	142.081	Furniture Designer
774	132.068	Columnist
775	143.062	Photographer, Newspaper
776	149.028	Art Teacher
777	160.168	Manager, Premium and Commission Accounting (insurance)
778	160.288	Estimator
779	162.158	Logging Manager
780	162.168	Buyer, Grain
781	163.168	Manager, Utility Sales and Service (light, heat, and power)
782	164.118	Manager, Advertising
783	166.268	Placement Officer
784	168.168	Manager, Credit
785	169.137	Manager, Office
786	183.168	General Foreman
787	184.118	Manager, Area Development
788	184.118	Superintendent, Airport
789	186.168	Operations Officer (banking)
790	186.168	Securities Trader (banking)
791	186.288	Loan Officer (banking)

	DOT Code	Title of Occupation
792	187.118	Superintendent, Home For Aged
793	196.163	Airplane Captain
794	197.133	Captain, Fishing Vessel
795	160.138	Senior Accounting Clerk
796	201.368	Medical Secretary
797	203.588	Teletype Operator
798	203.588	Wires Transfer Clerk (banking)
799	204.268	Policyholder's Information Clerk (insurance)
*800	860.281	Maintenance Carpenter
801	186.168	Branch Bank Manager
802	186.138	Assistant Branch Bank Manager
803	201.368	Secretary
804	203.588	Typist
805	206.388	File Clerk
806	250.258	Insurance Salesman
807	001.081	Building Designer
808	168.168	Credit and Collection Manager
809	023.081	Physicist
810	110.118	Corporation Lawyer
811	189.118	Corporation President
812	164.138	Production Manager, Advertising
813	162.158	Purchasing Agent
814	166.118	Personnel Manager
815	152.028	Music Teacher
816	973.381	Job Printer
*817	012.288	Industrial Engineering Technician
818	---	Omitted
819	---	Omitted
*820	637.281	Refrigeration Mechanic
821	219.488	Accounting Clerk
822	180.118	General Manager, Farm

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*These jobs are not contained in the replication sample. However, they are contained in the combined sample.

(3) Jobs Selected in the Present Study: Jobs 823-1422

ID	DOT Code	Title of Occupation
823	102.118	Director, Museum of Art
824	149.081	Artist-Writer
825	166.118	Employee Relations Manager
826	166.168	Supervisor of Employment
827	186.118	Transfer Agency and Registrarship Administration
828	189.118	Claims Manager
829	199.131	Test Laboratory Supervisor
830	241.138	Customer Service Supervisor
831	249.688	Advertising Dispatch Clerk
832	263.358	Salesperson - Shoes
833	286.358	Salesman - Sporting Goods
834	292.358	Salesman - Driver, Laundry
835	299.138	Platform Foreman
836	299.873	Delivery Man
837	311.878	Car Hop
838	319.134	Kitchen Supervisor
839	341.368	Golf Course Starter
840	352.118	Stewardess Service Manager
841	361.887	Shaker, Wearing Apparel
842	369.478	Curb Boy
843	372.868	Security Guard
844	413.885	Hay-Mill Man
845	401.883	Tractor Driver
846	620.281	Mine Machinery Mechanic
847	700.887	Polisher
848	806.781	Gasoline-Engine Assembler
849	976.886	Photograph Finisher
850	102.061	Art Coordinator
851	148.081	Sculptor
852	165.068	Legislative Liaison

ID	DOT Code	Title of Occupation
853	166.228	Director, Sales Education
854	185.168	Vending Enterprises Supervisor
855	188.118	Apprenticeship Training Representative
856	199.118	Recreation Facilities Designer
857	240.388	Head Throw-Out Desk Clerk
858	249.487	Potline Monitor
859	262.358	Salesman, Beef
860	285.358	Salesman
861	292.138	Route Supervisor
862	299.138	Department Manager - Women's Shop
863	299.868	Checker, Fitting Room
864	311.878	Bus Boy
865	318.887	Dishwasher, Machine
866	339.874	Manicurist and Facial Operator
867	350.878	Messman
868	359.873	Chauffeur
869	369.138	Owner-Manager, Laundromat
870	372.868	Gateman
871	431.263	Rigger
872	401.883	Combine Operator
873	619.380	Production Mechanic, Tin Cans
874	690.885	V-Belt Wrapper
875	806.381	Inspector, Assemblies and Installations
876	976.885	Mounter, Color Film
877	100.168	Medical Record Librarian
878	143.068	City Sports Writer
879	164.118	Director, Advertising
880	168.118	Director, Air and Water Control
881	185.158	Manager, Building Supplies
882	187.168	Manager, Restaurant or Coffee Shop
883	196.283	First Officer, Airline
884	240.368	Telephone Credit Man

ID	DOT Code	Title of Occupation
885	249.388	Mark-Up Man
886	259.258	Salesman, Storage
887	283.358	Assistant Store Manager
888	292.138	Route Supervisor, Laundry
889	299.138	Department Manager - Men's Clothing
890	299.867	Platform Man, Ice
891	311.878	Kitchen Runner
892	317.884	Bread Girl
893	335.878	Locker-Room Attendant
894	350.138	Chief Steward
895	359.368	Instructor
896	365.781	Fitter
897	372.868	Watchman I
898	436.138	Hatchery Superintendent III
899	404.131	Orchard Foreman
900	616.885	Body Maker
901	689.886	Spooler Operator
902	780.381	Furniture Upholsterer
903	941.488	Log Scaler
904	100.168	Medical Librarian
905	142.381	Artificial Tree Maker
906	163.118	Manager, Promotion
907	168.168	Quality Control Pharmacist
908	185.158	Showroom Manager
909	187.168	Manager, Front Office
910	196.282	Second Officer, Airline
911	240.138	Senior Collector
912	249.387	Plant Search Clerk
913	259.138	Customer Service Supervisor
914	280.158	Sales Representative
915	291.868	Newspaper Carrier
916	299.138	Service Manager

ID	DOT Code	Title of Occupation
917	299.864	Skate-Shop Man
918	311.138	Banquet Captain
919	317.138	Head Salad Girl
920	332.361	Make-Up Specialist
921	349.878	Pony Ride Attendant
922	358.878	Locker-Room Attendant
923	364.884	Glove Cleaner and Dyer
924	372.868	Watchman I, Furniture
925	389.887	Electric Helper, Lamp Sticker
926	404.131	Farmer, Apples
927	604.380	Screw Machine Set-Up Operator, Jobbing
928	685.885	Tricot-Knitting-Machine Operator
929	760.884	Bench Carpenter
930	929.887	Yarn Service Trainee
931	099.228	Language Teacher
932	142.081	Industrial Designer
933	162.158	Purchasing Steward
934	168.281	Waste Treatment Consultant
935	184.168	Communications Electrician Foreman
936	187.168	Operations Manager
937	195.168	Director, Camp
938	239.588	Floor, Reporter
939	249.368	Library Assistant
940	259.118	Manager-Salesman
941	278.258	Salesman, Communication Equipment
942	290.878	Coffee-Cart Man
943	299.138	Manager, Main Store
944	299.478	Parking Center Package Desk Attendant
945	311.867	Manager, Juice Bar
946	316.884	Perparation Man
947	332.271	Haircutter
948	349.228	Manager-Owner, Pony Ride

ID	DOT Code	Title of Occupation
949	358.137	Check Room Chief
950	363.887	Folder
951	372.868	Gateman
952	388.868	Front-Elevator Operator
953	404.161	Cranberry Grower
954	556.885	Blown Plastic Container Machine Operator
955	685.885	Circular Knitter
956	752.781	Hose Maker
957	920.887	Marker II
958	099.128	Educational Data Processing Technician
959	142.081	Jewelry Designer
960	162.158	Liquidation Broker
961	168.281	Public Health Sanitarian
962	184.168	Avionics Foreman
963	187.168	General Manager
964	193.132	Senior Radio Operator
965	239.368	Signal Operator
966	249.368	Lost Card Clerk
967	258.358	Retail Advertising Salesman
968	278.358	Salesman, Batteries
969	290.478	Salesclerk, Health Foods
970	299.137	Sales Floor Superintendent
971	299.464	Custom Gift-Wrapper
972	310.868	Hostess, Restaurant or Coffee Shop
973	315.381	Cook-Server
974	332.271	Hair Colorist
975	349.168	Parking Lot Supervisor
976	357.878	Skycap
977	363.885	Carrousel Operator
978	372.388	Security Inspector
979	381.887	Sweeper
980	404.131	Cranberry Farm Foreman

ID	DOT Code	Title of Occupation
981	539.782	Fourdrinier-Machine Tender
982	683.782	Levers-Lace-Machine Operator
983	759.687	Molded-Goods Inspector-Trimmer
984	920.887	Book-and-Game-Line Attendant
985	097.228	Instructor, Computer Operations
986	142.031	Display Manager
987	162.158	Floor Representative
988	168.284	Water Serviceman
989	184.168	Chief Inspector
990	187.138	Manager, Airline Lounge
991	191.268	Credit Limit Follower
992	239.285	Dispatcher
993	249.368	Credit Clerk
994	257.258	Sales Representative
995	276.358	Salesman, Ready-Mix Concrete
996	290.478	Head Bakery Sales Clerk
997	299.118	Log Sales Coordinator
998	299.458	Clerk, Costumes
999	310.138	Steward, Hotel
1000	314.381	Short Order Cook
1001	332.271	Fitter, Wigs
1002	349.168	Hospitality House Supervisor
1003	356.274	Groomer
1004	363.885	Pants Presser
1005	372.368	Security Officer, Vessel
1006	381.887	Overhead Cleaner
1007	404.883	Cranberry Farm Hand
1008	529.387	Quality Control Worker
1009	681.885	Twister Tender
1010	739.887	Assembler, Small Products
1011	920.885	Packager, Machine
1012	097.228	Inspector, Programming Technology

ID	DOT Code	Title of Occupations
1013	141.081	Lay-Out Artist
1014	162.118	Forester
1015	168.287	Industrial Waste Inspector
1016	184.168	Assistant Manager, Refuse Collection
1017	187.118	Beauty Salon Manager
1018	189.268	Customer Relation Man
1019	239.138	Mailing Foreman
1020	249.268	Credit Manager
1021	257.258	Communications Consultant
1022	274.358	Field Salesman, Floor Tile
1023	290.478	Bakery Sales Clerk
1024	298.387	Fieldman
1025	299.388	Estimator, Carpeting
1026	306.878	Housekeeper
1027	313.884	Cook Helper
1028	329.168	Hostess Home-for-Aged
1029	349.118	Operations Manager, Recreation
1030	355.884	Dietary Aide II
1031	363.782	Dry Cleaning Presser
1032	372.368	Guard, Sergeant
1033	381.887	Clean-Up Man
1034	404.885	Grass Removing Machine Tender
1035	504.782	Heat Treater
1036	643.782	Corrugator Operator
1037	739.887	Assembler, Oil Filter
1038	920.687	Linen-Supply-Load Builder
1039	097.228	Instructor, Technical
1040	139.228	Publication Engineer
1041	161.118	Treasurer
1042	169.118	Executive Art Director
1043	184.168	Traffic and Credit Manager
1044	187.118	Dockmaster

ID	DOT Code	Title of Occupation
1045	189.168	Superintendent, Maintenance
1046	239.138	Contract Clerk Supervisor
1047	249.168	Eligibility Worker
1048	255.358	Group and Convention Sales Representative
1049	274.358	Salesman, Furniture
1050	289.358	Salesperson, Pets
1051	297.138	Fashion Show Coordinator
1052	299.368	Telephone Order Taker
1053	305.281	Domestic Cook
1054	313.467	Satellite-Manager
1055	324.878	Doorman II
1056	346.687	Colorman, Racing
1057	355.878	Tray-Line Worker
1058	363.782	Presser, Machine
1059	372.168	Chief Dispatcher
1060	381.137	Night Building Superintendent
1061	405.137	Farm Youth Day-Haul Supervisor
1062	449.268	Timber Agent
1063	641.780	Envelope-Machine Set-Up Man
1064	729.887	Assembler Accessories
1065	863.884	Insulation Worker
1066	096.228	Home Management Aide
1067	131.263	Staff Newsman/Mobile Unit
1068	160.188	Auditor
1069	169.138	Policy Issue Supervisor
1070	184.168	Steam-Plant Economy Control Supervisor
1071	187.118	Reservations Manager
1072	189.138	Maintenance and Construction Superintendent
1073	237.368	Information Desk Clerk
1074	249.138	Delivery Information Counter Supervisor
1075	255.358	Tour Agent
1076	265.358	Salesman, Business Forms

ID	DOT Code	Title of Occupation
1077	289.358	Owner-Salesperson, Stamps
1078	296.388	Comparison Shopper
1079	299.368	Floor Supervisor, Carpet Workroom
1080	304.887	Yardman
1081	313.381	Modified Diet Cook
1082	323.887	Maid, Hospital
1083	344.878	Usher
1084	355.875	Physical Therapy Assistant
1085	363.684	Blocker
1086	372.168	Administrative Assistant
1087	376.868	Utilities Service Inspector
1088	409.168	Game Farm Manager
1089	449.388	Inventory Coding Supervisor
1090	640.885	Rewinder Operator
1091	726.884	Capacitor Winder
1092	840.781	Painter
1093	131.088	Script Writer
1094	160.187	Financial Records Examiner III
1095	169.168	Data Processing Manager
1096	184.168	Public Service Director
1097	187.118	Manager, Shoe Repair
1098	189.131	Maintenance Superintendent
1099	237.368	Clerk Aide
1100	249.138	Remittance Supervisor
1101	254.258	Sales Representative
1102	265.358	Company Representative, Wallcovering
1103	289.358	Assistant Circulation Manager
1104	296.388	Product Inspector
1105	299.358	Wedding Gift Consultant
1106	302.887	Ironer, Domestic
1107	313.131	Pastry Chef
1108	321.138	Inspectress

ID	DOT Code	Title of Occupation
1109	343.268	Upstairs Man
1110	355.371	Medicine Aide
1111	362.884	Furniture Cleaner
1112	372.138	Captain, Industrial Guard
1113	376.868	Warehouse Investigator
1114	411.168	Dairy General Manager
1115	441.887	Tree Pruner
1116	639.381	Vending-Machine Repairman
1117	725.884	Assembler, Microwave Tube
1118	828.281	Customer-Engineering Specialist
1119	131.038	News Director
1120	159.228	Waterfront Coordinator
1121	169.268	Administrator, Scheduling
1122	184.168	Manager, Loss Prevention
1123	186.168	Operations Assistant
1124	189.118	Vice President, Purchasing
1125	237.138	Supervisor, Telephone Information
1126	243.368	Service Clerk
1127	253.158	Senior Program Merchandiser
1128	264.358	Salesman, Leather Goods
1129	289.158	Assistant Sales Manager
1130	293.358	Director of Group-Sales
1131	299.358	Clerk, Formal Wear
1132	301.887	Day Worker
1133	313.131	School Food Service Coordinator
1134	320.168	Manager, Mobile Home Park
1135	343.138	Cardroom Manager
1136	354.368	Plant Nurse
1137	362.782	Dry Cleaner
1138	372.138	Manager of External Security
1139	376.868	Store Detective
1140	412.137	Hatchery Manager

ID	DOT Code	Title of Occupation
1141	441.368	Fire Lookout
1142	638.281	Millwright
1143	712.887	Plastic Trimmer
1144	826.884	Assembler
1145	129.108	Director, Religious Education
1146	159.118	Executive Producer
1147	182.168	Roadmaster
1148	184.168	Maintenance Superintendent, Gas Company
1149	186.168	Assistant Cashier, Bookkeeping
1150	189.118	Manager, Design and Cost
1151	235.762	Communication Center Operator
1152	242.368	Reservations Clerk
1153	252.258	Field Representative
1154	263.458	Salesperson, Men's and Boys' Clothing
1155	289.158	Sales Manager, Sawmill
1156	292.483	Routeman, Film
1157	299.358	Head of Stock
1158	299.887	Floor Carpet Cutter
1159	313.131	School Lunch Supervisor
1160	319.467	Dining Room Attendant, Hospital
1161	342.867	Wharf Attendant
1162	353.368	Airport Tour Guide
1163	362.782	Supervisor, Industrial Dry Cleaning
1164	369.887	Marker, Laundry
1165	376.268	Fraud Investigator
1166	413.138	Foreman, Cattle
1167	441.138	Headquarters Fireman
1168	638.281	Machinery Erector
1169	712.887	Inspector, Dental Equipment
1170	823.281	Technician, Automated Equipment
1171	096.128	Consumer Information Agent
1172	110.107	Unemployment Insurance Hearing Officer II

ID	DOT Code	Title of Occupation
1173	159.048	Music Director
1174	184.118	Station Manager
1175	184.168	Director, General Aviation
1176	186.138	Credit Manager
1177	189.118	Systems Manager
1178	235.322	Training Operator
1179	242.368	Assistant Reservation Manager
1180	252.258	Travelers Cheque Representative
1181	263.458	Salesperson, Men's Clothing
1182	287.358	Manager, Music Store
1183	292.468	Lunch Truck Driver
1184	299.358	Dockmaster
1185	299.887	Ready-to-Wear Hanger
1186	313.131	Cook Manager
1187	319.168	Manager, Food Checkers and Cashiers
1188	342.863	Railroad Rid Operator
1189	352.868	Receptionist, Airline Lounge
1190	362.138	Valet Chief
1191	369.887	Folder-Wrapper
1192	376.268	Cash Shortage Investigator
1193	413.585	Feeder Operator, Automatic
1194	441.118	Operations Forester
1195	637.351	Refrigeration and Heating Mechanic
1196	712.887	Assembler, Dental Equipment
1197	102.118	Director, Arboreta
1198	153.228	Teacher, Physical Education
1199	184.168	General Plant Manager
1200	186.118	Regional Claims Manager
1201	189.118	Secretary of Insurance Company
1202	235.862	Receptionist, Plywood Company
1203	241.368	Customer Service Clerk
1204	252.258	Merchant Sales Representative

ID	DOT Code	Title of Occupation
1205	263.358	Salesperson, Women's Shop
1206	287.358	Manager, Piano Store
1207	292.358	Salesman - Driver, Diapers
1208	299.258	Customer Service Representative
1209	299.884	Sample Maker, Button Cards
1210	312.878	Bartender
1211	319.134	Cooked Foods Supervisor
1212	342.863	Monorail Operator
1213	352.138	Supervisor of Stewardess Services
1214	361.887	Washer
1215	369.885	Tumbler Operator
1216	375.268	Airport Safety and Security Officer
1217	413.885	Hammer-Mill Operator
1218	436.884	Hatchery Assistant II
1219	625.281	Diesel Mechanic
1220	709.884	Cable Assembler
1221	810.884	Welder, Production Line
1222	823.281	Radio Mechanic
1223	003.081	Electrical Engineer (commercial & inspector)
1224	007.081	Mechanical Engineer II (professional & kindred)
1225	012.168	Production Change Analyst
1226	018.188	Civil Engineering Associate (Geodetric & Right-of-Way)
1227	022.081	Formulator
1228	040.031	Engineering Technician 6-10
1229	045.088	Human Factors Specialist
1230	075.378	Industrial Nurse
1231	090.118	Director, University Extension
1232	201.368	Secretary I, Personnel
1233	204.388	Foreign Trade Services Clerk
1234	207.382	Clerk-Typist; Compositor
1235	210.388	Fuel-Oil Clerk
1236	213.132	Supervisor and Lead Computer Operator

ID	DOT Code	Title of Occupation
1237	217.138	Accounting Supervisor (production)
1238	219.388	Receptionist Bookkeeper
1239	219.488	Labor Analysis Clerk
1240	221.168	Production Control Clerk
1241	221.587	Production Operator (supply sorting)
1242	222.683	Production Operator (staple)
1243	223.387	Jig and Tool Storage Man
1244	223.887	Stock Clerk Helper
1245	224.685	Set-Up Man
1246	229.687	Pole Inspector
1247	229.138	Department Head-Buyer (retail trade)
1248	003.181	Instrumentation Research and Development Technology
1249	007.181	Assistant Chief Engineer
1250	012.188	Production Engineer
1251	018.288	Surveying Technician
1252	022.281	Textile Chemist
1253	040.081	Agriculturist, Air and Water Pollution Control
1254	045.107	Employment Service Counselor II
1255	077.118	Food Service Director
1256	090.168	Department Head, College or University
1257	202.387	Hearings Reporter
1258	205.268	Secretary-Assistant to Personnel Services Coordinator
1259	208.588	Perforator Operator
1260	210.388	Material Usage Auditor
1261	213.132	Supervisor, Key Punch
1262	219.138	Evaluation Supervisor
1263	219.388	Clerk Typist
1264	219.488	Power Load Records Clerk
1265	221.133	Assistant Foreman, Prize and Chest
1266	221.688	Test Inspector (sampling)
1267	222.688	Cotton Shipper
1268	223.387	Stock Room Attendant

ID	DOT Code	Title of Occupation
1269	224.485	Cheese Weigher and Labeler
1270	224.885	Weigher
1271	230.587	Runner (advertising production)
1272	237.368	Hospital-Admitting Clerk (medical service)
1273	003.187	Electrical Engineering Associate (underground distribution)
1274	007.181	Mechanical Engineering Assistant, Steam Plants
1275	012.188	Assistant Secretary and Manager of C.O.P.
1276	019.081	(Photomask) Engineer
1277	022.381	Assistant Laboratory Technician
1278	040.288	Assistant Ranger (pre-sale, reforestation planning and inventory)
1279	045.108	Social Director
1280	078.168	Supervisor, Technical Services
1281	091.118	Principal
1282	202.388	Stenographer and Inventory Clerk
1283	205.368	Assistant Registrar
1284	209.368	Office Girl
1285	210.388	Night Auditor
1286	213.382	Tabulating Equipment Operator
1287	219.138	Supervisor, Payroll
1288	219.388	Senior Clerk (construction billing)
1289	219.488	Monthly Report Clerk
1290	221.168	Material Coordinator
1291	221.388	Order Man, Set Packing
1292	222.138	Unload and Sort Supervisor
1293	223.138	Receiving Foreman
1294	223.387	Store Room Clerk
1295	224.487	Weigher and Recorder
1296	229.118	Data Processing Director
1297	230.878	Mail Clerk
1298	005.138	Environmental Engineer VI (public water supply)
1299	007.187	Tool Programmer, Numerical Control

ID	DOT Code	Title of Occupation
1300	012.188	Industrial Engineer Supervisor
1301	019.281	Laboratory Technician
1302	023.081	Physicist
1303	041.081	Biologist
1304	050.087	Research Analyst
1305	078.168	Chief Laboratory Technologist
1306	091.168	Music Supervisor
1307	203.138	Supervisor, Communication Center
1308	205.368	Receptionist-Secretary
1309	209.388	Policy Issue Clerk
1310	211.138	Chief Cashier
1311	213.382	Mill Recorder, Computerized Mill
1312	219.388	Programmer, Detail (graphic arts)
1313	219.388	Billing Clerk
1314	219.468	General Office Clerk
1315	219.488	Accounting Clerk "B"
1316	221.388	Production Operator (prepare for symbolization)
1317	222.368	Shipping Clerk
1318	223.138	Magazine Foreman
1319	223.387	Tool Crib Attendant
1320	224.487	Stem Checker and Recorder
1321	229.368	Tallyman, Loading
1322	231.138	Supervisor, Mail Order
1323	005.168	Chief Engineer
1324	007.187	Tooling Specialist
1325	013.131	Forest Engineer
1326	019.281	Research Technician, Air and Water Pollution Company
1327	024.081	Seismologist
1328	041.081	Wildlife Research Biologist
1329	070.108	Radiation-Therapy Radiologist
1330	078.261	Certified Orthotist and Prosthetist
1331	091.228	Teacher, Speech

ID	DOT Code	Title of Occupation
1332	203.382	Senior Composer-Operator
1333	205.368	Employment Interviewer
1334	209.388	Advertising Clerk
1335	211.468	Assistant Cashier
1336	213.582	Terminal Operator
1337	219.388	Coding Clerk
1338	219.388	Biller, Mail Order
1339	219.468	Coffee Shop Hostess
1340	219.488	Accounting Clerk "A"
1341	221.388	Tool Order Control Clerk
1342	222.387	Inspector-Shipping General
1343	223.368	Piping Materials Control Clerk
1344	223.388	Material Requirements Man A and B
1345	224.487	Weigh-Out Man
1346	229.368	Order Processor
1347	231.588	Mail Clerk
1348	001.081	Naval Architect
1349	005.081	Waterworks Engineer (distribution design)
1350	008.081	Manufacturing Engineer
1351	017.281	Designer, Electromechanical
1352	020.018	Manager, Systems Planning and Program Development
1353	041.281	Biological Tester
1354	070.108	Obstetrical Consultant
1355	074.118	Chief Pharmacist
1356	078.268	Special Procedure Radiologic Technologist
1357	091.228	Teacher, Industrial Arts
1358	203.582	Magnetic Tape Selectric Typewriter (MTST) Operator
1359	205.388	License Clerk (insurance)
	206.368	Senior Clerk (records)
1360	209.587	Sample Girl
1361	211.468	Cashier II (clerical)
1362	213.885	Data-Processing Technician

ID	DOT Code	Title of Occupation
1363	219.388	Secretary
1364	219.488	Time Checker
1365	219.588	Assistant Dispatcher
1366	221.388	Clerk (planning section)
1367	222.485	Loader
1368	223.387	Container Control Clerk
1369	223.687	Stock Clerk
1370	224.487	Scaleman
1371	229.381	Senior Carpet Mechanic
1372	234.885	Wing-Mailer, Hand
1373	002.281	Engineering Draftsman A and B
1374	005.281	Lead Civil Engineering Draftsman (overhead)
1375	010.168	Observer
1376	017.281	Systems Layout Man
1377	020.088	Analytical Engineer (operating and maintenance)
1378	029.138	Laboratory Director
1379	041.281	Water Bacteriologist (public health standards)
1380	075.118	Director of Nursing Services
1381	078.368	Electroencephalograph Technician
1382	094.208	Rehabilitation Teacher of the Visually Impaired
1383	204.138	Supervisor of Correspondence Section
1384	206.388	Engineering Master Layout Control Man
1385	209.588	Car Checker
1386	211.468	Clerk (mail remittances)
1387	216.368	Unit Supervisor
1388	219.388	Monthly Reports Clerk
1389	219.488	Student Assistant
1390	219.588	Meter Book Assembly and Billing Clerk
1391	221.388	Packing Clerk
1392	222.488	Receiver, Gate
1393	223.387	Linen Room Worker
1394	223.887	Bin Assorter

ID	DOT Code	Title of Occupation
1395	224.487	Rotex Man
1396	229.388	Product Development Secretary
1397	234.582	Lable Machine Operator
1398	003.021	Chief Test Engineer
1399	007.081	Automotive Engineer
1400	012.168	Factory Special-Assignments Man; Moderization and Development Liaison Man
1401	017.281	Civil Engineering Draftsman (transmission and trouble)
1402	020.188	Portfolio Investment Analyst
1403	029.381	Technician
1404	041.031	Aquaculturist
1405	075.128	Supervisor of Nursing Care
1406	079.128	Art Therapist
1407	201.138	Assistant Manager
1408	204.388	Correspondence Service Clerk
1409	206.587	Killman
1410	209.588	Bulk Marker
1411	212.138	Savings Operations Officer
1412	216.488	Food Checker
1413	219.388	Secretary
1414	219.488	Billing Clerk I - Source Document Verifier
1415	219.588	Accounting Machine Operator
1416	221.487	Production Operator (wafer salvage)
1417	222.587	Apron Writer; Receiving Clerk
1418	223.387	Stock Clerk
1419	223.687	Utility Hand (all around)
1420	224.587	Weight Checker
1421	229.588	Wheel Press Clerk
1422	235.132	Supervisor (central office)

APPENDIX C

INTER-RATER RELIABILITY ANALYSES OF THE OAI WORK ELEMENTS (ITEMS)

(1) OAI Item (Work Element) Reliability Estimates Based on Two Sets of OAI Ratings of 215 Jobs

OAI Item (Work Element) Reliability Estimates Based on Three Sets of OAI Ratings of 88 Jobs

(2) Table 17. Identification Numbers of 215 Jobs for Which Two Sets of OAI Ratings Were Obtained

(3) Table 18. Conversion of Variable Identification Numbers in the Reliability Analyses to the Appropriate OAI Work Element (Item) Numbers

(4) Table 19. Frequency and Proportion Distributions for Two Estimates of OAI Item Inter-Rater Reliability

(5) Table 20. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 215 Jobs by Two Sets of Analysts

(6) Table 21. Identification Numbers of 88 Jobs for Which Three Sets of OAI Ratings Were Obtained

(7) Table 22. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 88 Jobs by Three Sets of Analysts

(1) OAI Item (Work Element) Reliability Estimates Based on Two Sets of OAI Ratings of 215 Jobs

One of the OAI item reliability analyses used two sets of OAI ratings of the 215 jobs identified in Table 17. One set of OAI ratings was performed by 14 analysts (raters) and the second set by 13 analysts. Each analyst rated from 1 to 34 jobs in a set. Although some analysts contributed to both rating sets, in no instance did an analyst rate the same job in both rating sets; i.e., no job was rated twice by the same analyst.

A total of 622 OAI items (work elements) were analyzed for inter-rater reliability. Those items are identified in Table 18, which converts the variable identification numbers in the reliability analyses to the appropriate OAI item numbers.

The inter-rater reliability estimate for each OAI item consisted of the Pearson correlation between the first and second sets of job ratings on that item. The frequency and proportion distributions for the 622 correlations (one correlation for each OAI item) are presented in Table 19. The 622 correlation coefficients are presented in Table 20.

OAI Item (Work Element) Reliability Estimates Based on Three Sets of OAI Ratings of 88 Jobs

The second OAI item reliability analysis used three sets of ratings of the 88 jobs identified in Table 21. The three sets of OAI ratings were performed by 13, 12, and 15 analysts, respectively, with each analyst rating from 1 to 28 jobs in a set. Although some analysts contributed to more than one rating set, in no instance did an analyst rate the same job in more than one set; i.e., no job was rated more than once by the same analyst.

An analysis-of-variance procedure was applied to the three sets of ratings in order to derive four reliability estimates for each OAI item: the intraclass coefficient, the adjusted intraclass coefficient, the interclass coefficient, and the adjusted interclass coefficient (Winer, 1971). The intraclass coefficient represents essentially the average pair-wise correlation between the three rating sets, while the interclass coefficient estimates the reliability of the mean rating profile across all three rating sets; i.e., the intraclass coefficient estimates the reliability of one rating set, while the interclass coefficient estimates the reliability of all three rating sets combined. The adjusted intra- and interclass coefficients are estimates in which the analysts' adaptation levels are equalized (essentially, as if the ratings in each rating set were standardized), whereas the unadjusted coefficients are attenuated by differences in the analysts' adaptation levels. Since it is unlikely that individual analysts' ratings would be standardized in the practical application of the OAI, the unadjusted coefficients are probably the more appropriate reliability estimates.

Table 19 presents the frequency and proportion distributions of the unadjusted interclass reliability coefficients for 617 OAI items.* Table 22 contains the adjusted and unadjusted intra- and interclass coefficients for each OAI item.

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*The coefficients for five of the 622 OAI items were not properly computed and were, therefore, omitted from the distributions.

(2)

Table 17. Identification Numbers of 215 Jobs for Which Two Sets of OAI Ratings Were Obtained[a]

Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number
1	1	43	95	85	216	127	340
2	2	44	96	86	221	128	341
3	4	45	100	87	227	129	344
4	5	46	103	88	228	130	345
5	8	47	104	89	231	131	351
6	9	48	105	90	236	132	355
7	10	49	112	91	238	133	357
8	12	50	116	92	239	134	361
9	13	51	118	93	242	135	363
10	14	52	121	94	243	136	365
11	15	53	124	95	248	137	370
12	16	54	127	96	250	138	371
13	17	55	131	97	254	139	375
14	22	56	133	98	255	140	378
15	24	57	135	99	256	141	380
16	26	58	137	100	261	142	384
17	28	59	139	101	263	143	388
18	29	60	143	102	265	144	390
19	31	61	147	103	269	145	391
20	32	62	150	104	274	146	393
21	35	63	153	105	277	147	396
22	37	64	154	106	278	148	402
23	43	65	159	107	281	149	404
24	46	66	160	108	286	150	412
25	47	67	163	109	288	151	414
26	54	68	164	110	290	152	418
27	56	69	171	111	292	153	420
28	58	70	172	112	298	154	424
29	59	71	176	113	302	155	426
30	60	72	181	114	303	156	433
31	62	73	183	115	309	157	435
32	64	74	186	116	310	158	436
33	70	75	193	117	312	159	440
34	71	76	194	118	314	160	446
35	73	77	195	119	316	161	449
36	75	78	197	120	318	162	451
37	76	79	202	121	319	163	460
38	80	80	205	122	326	164	462
39	82	81	208	123	330	165	464
40	84	82	209	124	333	166	467
41	88	83	211	125	338	167	479
42	91	84	214	126	339	168	493

(2)

Table 17 (continued)

Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number
169	494	181	680	193	756	205	805
170	500	182	685	194	761	206	806
171	501	183	688	195	762	207	807
172	502	184	695	196	763	208	809
173	503	185	697	197	764	209	810
174	541	186	728	198	765	210	813
175	542	187	747	199	766	211	815
176	555	188	748	200	800	212	817
177	576	189	749	201	801	213	820
178	579	190	753	202	802	214	821
179	615	191	754	203	803	215	822
180	674	192	755	204	804		

NOTE: One set of ratings was obtained from 14 raters, and the second set from 13 raters. The number of jobs rated by each analyst in each set ranged from 1 to 34.

[a] See appropriate ID numbers in Appendix B for job titles and DOT codes.

(3)

Table 18. Conversion of Variable Identification Numbers in the Reliability Analyses to the Appropriate OAI Work Element (Item) Numbers

Variable Number		OAI[a] Number	Variable Number		OAI Number	Variable Number		OAI Number	Variable Number		OAI Number
1	=	1i	41	=	41i	81	=	81i	121	=	121i
2	=	2i	42	=	42i	82	=	82i	122	=	122i
3	=	3i	43	=	43i	83	=	83i	123	=	123i
4	=	4i	44	=	44i	84	=	84i	124	=	124i
5	=	5i	45	=	45i	85	=	85i	125	=	125i
6	=	6i	46	=	46i	86	=	86i	126	=	1m
7	=	7i	47	=	47i	87	=	87i	127	=	2m
8	=	8i	48	=	48i	88	=	88i	128	=	3m
9	=	9i	49	=	49i	89	=	89i	129	=	4m
10	=	10i	50	=	50i	90	=	90i	130	=	5m
11	=	11i	51	=	51i	91	=	91i	131	=	6m
12	=	12i	52	=	52i	92	=	92i	132	=	7m
13	=	13i	53	=	53i	93	=	93i	133	=	8m
14	=	14i	54	=	54i	94	=	94i	134	=	9m
15	=	15i	55	=	55i	95	=	95i	135	=	10m
16	=	16i	56	=	56i	96	=	96i	136	=	11m
17	=	17i	57	=	57i	97	=	97i	137	=	12m
18	=	18i	58	=	58i	98	=	98i	138	=	13m
19	=	19i	59	=	59i	99	=	99i	139	=	14m
20	=	20i	60	=	60i	100	=	100i	140	=	15m
21	=	21i	61	=	61i	101	=	101i	141	=	16m
22	=	22i	62	=	62i	102	=	102i	142	=	17m
23	=	23i	63	=	63i	103	=	103i	143	=	18m
24	=	24i	64	=	64i	104	=	104i	144	=	19m
25	=	25i	65	=	65i	105	=	105i	145	=	20m
26	=	26i	66	=	66i	106	=	106i	146	=	21m
27	=	27i	67	=	67i	107	=	107i	147	=	22m
28	=	28i	68	=	68i	108	=	108i	148	=	23m
29	=	29i	69	=	69i	109	=	109i	149	=	24m
30	=	30i	70	=	70i	110	=	110i	150	=	25m
31	=	31i	71	=	71i	111	=	111i	151	=	26m
32	=	32i	72	=	72i	112	=	112i	152	=	27m
33	=	33i	73	=	73i	113	=	113i	153	=	28m
34	=	34i	74	=	74i	114	=	114i	154	=	29m
35	=	35i	75	=	75i	115	=	115i	155	=	30m
36	=	36i	76	=	76i	116	=	116i	156	=	31m
37	=	37i	77	=	77i	117	=	117i	157	=	32m
38	=	38i	78	=	78i	118	=	118i	158	=	33m
39	=	39i	79	=	79i	119	=	119i	159	=	34m
40	=	40i	80	=	80i	120	=	120i	160	=	35m

(3)

Table 18 (continued)

Variable Number		OAI[a] Number	Variable Number		OAI Number	Variable Number		OAI Number	Variable Number		OAI Number
161	=	36m	203	=	37t	245	=	79t	287	=	24a
162	=	37m	204	=	38t	246	=	80t	288	=	25a
163	=	38m	205	=	39t	247	=	81t	289	=	26a
164	=	39m	206	=	40t[b]	248	=	82t	290	=	27a
165	=	40m	207	=	41t	249	=	83t	291	=	28a
166	=	41m	208	=	42t	250	=	84t	292	=	29a
167	=	1t	209	=	43t	251	=	85t	293	=	30a
168	=	2t	210	=	44t	252	=	86t	294	=	31a
169	=	3t	211	=	45t	253	=	87t	295	=	32a
170	=	4t	212	=	46t[b]	254	=	88t	296	=	33a
171	=	5t	213	=	47t	255	=	89t	297	=	34a
172	=	6t	214	=	48t	256	=	90t	298	=	35a
173	=	7t	215	=	49t	257	=	91t	299	=	36a
174	=	8t	216	=	50t	258	=	92t	300	=	37a
175	=	9t	217	=	51t	259	=	93t	301	=	38a
176	=	10t	218	=	52t	260	=	94t	302	=	39a
177	=	11t	219	=	53t	261	=	95t[b]	303	=	40a
178	=	12t	220	=	54t	262	=	1a	304	=	41a
179	=	13t	221	=	55t	263	=	2a	305	=	42a
180	=	14t	222	=	56t	264	=	3a	306	=	43a
181	=	15t	223	=	57t	265	=	4a	307	=	44a
182	=	16t	224	=	58t	266	=	5a	308	=	45a
183	=	17t	225	=	59t	267	=	6a	309	=	46a
184	=	18t	226	=	60t	268	=	-[c]	310	=	47a
185	=	19t[b]	227	=	61t	269	=	-[c]	311	=	48a
186	=	20t	228	=	62t	270	=	7a	312	=	49a
187	=	21t	229	=	63t	271	=	8a	313	=	50a
188	=	22t	230	=	64t	272	=	9a	314	=	51a
189	=	23t	231	=	65t	273	=	10a	315	=	52a
190	=	24t	232	=	66t[b]	274	=	11a	316	=	53a
191	=	25t	233	=	67t	275	=	12a	317	=	54a
192	=	26t	234	=	68t	276	=	13a	318	=	55a
193	=	27t	235	=	69t	277	=	14a	319	=	1j
194	=	28t	236	=	70t	278	=	15a	320	=	2j
195	=	29t	237	=	71t	279	=	16a	321	=	3j
196	=	30t	238	=	72t	280	=	17a	322	=	4j
197	=	31t	239	=	73t	281	=	18a	323	=	5j
198	=	32t	240	=	74t	282	=	19a	324	=	6j
199	=	33t	241	=	75t	283	=	20a	325	=	7j
200	=	34t	242	=	76t	284	=	21a	326	=	8j
201	=	35t	243	=	77t	285	=	22a	327	=	9j
202	=	36t	244	=	78t	286	=	23a	328	=	10j

Table 18 (continued)

Variable Number		OAI[a] Number	Variable Number		OAI Number	Variable Number		OAI Number	Variable Number		OAI Number
329	=	11j	371	=	9r	413	=	12p	455	=	22g
330	=	12j	372	=	10r	414	=	13p	456	=	23g
331	=	13j	373	=	11r	415	=	14p	457	=	24g
332	=	14j	374	=	12r	416	=	15p	458	=	25g
333	=	15j	375	=	13r	417	=	16p	459	=	26g
334	=	16j	376	=	14r	418	=	17p	460	=	27g
335	=	17j	377	=	15r	419	=	18p	461	=	28g
336	=	18j	378	=	16r	420	=	19p	462	=	29g
337	=	19j	379	=	17r	421	=	20p	463	=	30g
338	=	20j	380	=	18r	422	=	21p	464	=	31g
339	=	21j	381	=	19r	423	=	22p	465	=	32g
340	=	22j	382	=	20r	424	=	23p	466	=	33g
341	=	23j	383	=	21r	425	=	24p	467	=	34g
342	=	24j	384	=	22r	426	=	25p	468	=	35g
343	=	25j	385	=	23r	427	=	26p	469	=	36g
344	=	26j	386	=	24r	428	=	27p	470	=	37g
345	=	27j	387	=	25r	429	=	28p	471	=	38g
346	=	28j	388	=	26r	430	=	29p	472	=	39g
347	=	29j	389	=	27r	431	=	30p	473	=	40g
348	=	30j	390	=	28r	432	=	31p	474	=	41g
349	=	31j	391	=	29r	433	=	32p[a]	475	=	42g
350	=	32j	392	=	30r	434	=	1g	476	=	43g
351	=	33j	393	=	31r	435	=	2g	477	=	44g
352	=	34j	394	=	32r	436	=	3g	478	=	45g
353	=	35j	395	=	33r	437	=	4g	479	=	46g
354	=	36j	396	=	34r	438	=	5g	480	=	47g
355	=	37j	397	=	35r	439	=	6g	481	=	48g
356	=	38j	398	=	36r	440	=	7g	482	=	49g
357	=	39j	399	=	37r	441	=	8g	483	=	50g
358	=	40j	400	=	38r	442	=	9g	484	=	51g
359	=	41j	401	=	39r	443	=	10g	485	=	52g
360	=	42j	402	=	1p	444	=	11g	486	=	53g
361	=	43j	403	=	2p	445	=	12g	487	=	54g
362	=	44j	404	=	3p	446	=	13g	488	=	55g
363	=	1r	405	=	4p	447	=	14g	489	=	56g
364	=	2r	406	=	5p	448	=	15g	490	=	57g
365	=	3r	407	=	6p	449	=	16g	491	=	58g
366	=	4r	408	=	7p	450	=	17g	492	=	59g
367	=	5r	409	=	8p	451	=	18g	493	=	60g
368	=	6r	410	=	9p	452	=	19g	494	=	61g
369	=	7r	411	=	10p	453	=	20g	495	=	62g
370	=	8r	412	=	11p	454	=	21g	496	=	63g

(3)

Table 18 (continued)

Variable Number		OAI^{a} Number	Variable Number		OAI Number	Variable Number		OAI Number	Variable Number		OAI Number
497	=	64g	529	=	96g	561	=	16c	593	=	48c
498	=	65g	530	=	97g	562	=	17c	594	=	49c
499	=	66g	531	=	98g	563	=	18c	595	=	50c
500	=	67g	532	=	99g	564	=	19c	596	=	51c
501	=	68g	533	=	100g	565	=	20c	597	=	52c
502	=	69g	534	=	101g	566	=	21c	598	=	53c
503	=	70g	535	=	102g	567	=	22c	599	=	54c
504	=	71g	536	=	103g	568	=	23c	600	=	55c
505	=	72g	537	=	104g	569	=	24c	601	=	56c
506	=	73g	538	=	105g	570	=	25c	602	=	57c
507	=	74g	539	=	106g	571	=	26c	603	=	58c
508	=	75g	540	=	107g	572	=	27c	604	=	59c
509	=	76g	541	=	108g	573	=	28c	605	=	60c
510	=	77g	542	=	109g	574	=	29c	606	=	61c
511	=	78g	543	=	110g	575	=	30c	607	=	62c
512	=	79g	544	=	111g	576	=	31c	608	=	63c
513	=	80g	545	=	112g	577	=	32c	609	=	64c
514	=	81g	546	=	1c	578	=	33c	610	=	65c
515	=	82g	547	=	2c	579	=	34c	611	=	66c
516	=	83g	548	=	3c	580	=	35c	612	=	67c
517	=	84g	549	=	4c	581	=	36c	613	=	68c
518	=	85g	550	=	5c	582	=	37c	614	=	69c
519	=	86g	551	=	6c	583	=	38c	615	=	70c
520	=	87g	552	=	7c	584	=	39c	616	=	71c
521	=	88g	553	=	8c	585	=	40c	617	=	72c
522	=	89g	554	=	9c	586	=	41c	618	=	73c
523	=	90g	555	=	10c	587	=	42c	619	=	74c
524	=	91g	556	=	11c	588	=	43c	620	=	75c
525	=	92g	557	=	12c	589	=	44c	621	=	76c
526	=	93g	558	=	13c	590	=	45c	622	=	77c
527	=	94g	559	=	14c	591	=	46c			
528	=	95g	560	=	15c	592	=	47c			

NOTE: The OAI items represented in this table are appended to the following Ergometric report: Cunningham, J. W., Tuttle, T. C., Floyd, J. R., and Bates. J. A. The development of the Occupation Analysis Inventory: an "ergometric" approach to an educational problem. In JSAS Catalog of Selected Documents in Psychology, 1974, 4, 144 (180 pp.).

[a] Items 33p and 34p in the Interpersonal Work Behavior section of the current OAI were recently added and were not included in the reliability analyses.

Table 18 (continued)

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[b] The following Tool, Machine, and Equipment Usage items were write-in items: 19t, 40t, 46t, 66t, and 95t. For those items, the analyst was instructed to write in tools and equipment not otherwise covered and to rate the job on them. It was expected that those OAI items would show low inter-rater reliabilities.

[c] The items corresponding to variable numbers 268 and 269 have been deleted from the OAI and were not included in the factor analyses in the present study.

(4)

Table 19. Frequency and Proportion Distributions for Two Estimates of OAI Item Inter-Rater Reliability

Coefficient Intervals	Correlations Between 2 Rating Sets[a]		Unadjusted Interclass Coefficient[b] (3 Rating Sets)	
	Frequency	Proportion	Frequency	Proportion
.90+	10	.02	48	.08
.80-.89	32	.05	155	.25
.70-.79	80	.13	149	.24
.60-.69	134	.22	99	.16
.50-.59	103	.16	61	.10
.40-.49	87	.14	31	.05
.30-.39	81	.13	23	.04
.20-.29	36	.06	15	.02
.10-.19	15	.02	7	.01
.00-.09	24	.04	7	.01
.00	20	.03	22	.04
TOTAL	622	1.00	617[c]	1.00

[a] Coefficients based on the correlations between two sets of OAI ratings of 215 jobs.

[b] Coefficients derived through the analysis of variance of three sets of OAI ratings of 88 jobs. Each coefficient estimates the reliability of the mean rating profile based on the three rating sets.

[c] The coefficients for five of the 622 OAI items were not properly computed and were, therefore, omitted from the distribution.

(5) Table 20. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 215 Jobs by Two Sets of Analysts (The two sets of ratings were correlated for each item.)

```
CORRELATION FOR ITEM   1=  0.4890
CORRELATION FOR ITEM   2=  0.6212
CORRELATION FOR ITEM   3=  0.6175
CORRELATION FOR ITEM   4=  0.4966
CORRELATION FOR ITEM   5=  0.5359
CORRELATION FOR ITEM   6=  0.5731
CORRELATION FOR ITEM   7=  0.5436
CORRELATION FOR ITEM   8=  0.5778
CORRELATION FOR ITEM   9=  0.4841
CORRELATION FOR ITEM  10=  0.5974
CORRELATION FOR ITEM  11=  0.4932
CORRELATION FOR ITEM  12=  0.3601
CORRELATION FOR ITEM  13=  0.7423
CORRELATION FOR ITEM  14=  0.7559
CORRELATION FOR ITEM  15=  0.8103
CORRELATION FOR ITEM  16=  0.7159
CORRELATION FOR ITEM  17=  0.6196
CORRELATION FOR ITEM  18=  0.7064
CORRELATION FOR ITEM  19=  0.7371
CORRELATION FOR ITEM  20=  0.7286
CORRELATION FOR ITEM  21=  0.8688
CORRELATION FOR ITEM  22=  0.6076
CORRELATION FOR ITEM  23=  0.6061
CORRELATION FOR ITEM  24=  0.6035
CORRELATION FOR ITEM  25=  0.3502
CORRELATION FOR ITEM  26=  0.5183
CORRELATION FOR ITEM  27=  0.2478
CORRELATION FOR ITEM  28=  0.7323
CORRELATION FOR ITEM  29=  0.3300
CORRELATION FOR ITEM  30=  0.6598
CORRELATION FOR ITEM  31=  0.4939
CORRELATION FOR ITEM  32=  0.3482
CORRELATION FOR ITEM  33=  0.2942
CORRELATION FOR ITEM  34=  0.5797
CORRELATION FOR ITEM  35=  0.3424
CORRELATION FOR ITEM  36=  0.3940
CORRELATION FOR ITEM  37=  0.3031
CORRELATION FOR ITEM  38=  0.5757
CORRELATION FOR ITEM  39=  0.4375
CORRELATION FOR ITEM  40=  0.3908
CORRELATION FOR ITEM  41=  0.3584
CORRELATION FOR ITEM  42=  0.4012
CORRELATION FOR ITEM  43=  0.1007
CORRELATION FOR ITEM  44=  0.4222
CORRELATION FOR ITEM  45=  0.8494
CORRELATION FOR ITEM  46=  0.5095
CORRELATION FOR ITEM  47=  0.4938
CORRELATION FOR ITEM  48=  0.2938
CORRELATION FOR ITEM  49=  0.6230
CORRELATION FOR ITEM  50=  0.8092
CORRELATION FOR ITEM  51=  0.7821
CORRELATION FOR ITEM  52=  0.7527
CORRELATION FOR ITEM  53=  0.6429
CORRELATION FOR ITEM  54=  1.0000
CORRELATION FOR ITEM  55=  0.5594
CORRELATION FOR ITEM  56=  0.5415
CORRELATION FOR ITEM  57=  0.8740
CORRELATION FOR ITEM  58=  0.7362
CORRELATION FOR ITEM  59=  0.5509
CORRELATION FOR ITEM  60=  0.8340
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM  61=  0.7065
CORRELATION FOR ITEM  62=  0.6240
CORRELATION FOR ITEM  63=  0.7140
CORRELATION FOR ITEM  64=  0.8310
CORRELATION FOR ITEM  65=  0.4985
CORRELATION FOR ITEM  66=  0.2558
CORRELATION FOR ITEM  67=  0.9740
CORRELATION FOR ITEM  68=  0.5644
CORRELATION FOR ITEM  69=  0.7105
CORRELATION FOR ITEM  70=  0.8365
CORRELATION FOR ITEM  71=  0.6864
CORRELATION FOR ITEM  72=  0.8195
CORRELATION FOR ITEM  73=  0.6879
CORRELATION FOR ITEM  74=  0.4405
CORRELATION FOR ITEM  75=  0.8330
CORRELATION FOR ITEM  76=  0.5010
CORRELATION FOR ITEM  77=  0.8802
CORRELATION FOR ITEM  78=  0.5458
CORRELATION FOR ITEM  79=  0.7168
CORRELATION FOR ITEM  80=  0.5461
CORRELATION FOR ITEM  81=  0.7124
CORRELATION FOR ITEM  82=  0.7581
CORRELATION FOR ITEM  83=  0.6139
CORRELATION FOR ITEM  84=  0.6322
CORRELATION FOR ITEM  85=  0.6578
CORRELATION FOR ITEM  86=  0.6632
CORRELATION FOR ITEM  87=  0.5252
CORRELATION FOR ITEM  88=  0.2311
CORRELATION FOR ITEM  89=  0.6245
CORRELATION FOR ITEM  90=  0.2828
CORRELATION FOR ITEM  91=  0.4892
CORRELATION FOR ITEM  92=  0.2573
CORRELATION FOR ITEM  93=  0.7619
CORRELATION FOR ITEM  94=  0.6433
CORRELATION FOR ITEM  95=  0.7112
CORRELATION FOR ITEM  96=  0.7668
CORRELATION FOR ITEM  97=  0.6901
CORRELATION FOR ITEM  98=  0.6953
CORRELATION FOR ITEM  99=  0.4800
CORRELATION FOR ITEM 100=  0.7013
CORRELATION FOR ITEM 101=  0.7190
CORRELATION FOR ITEM 102=  0.5672
CORRELATION FOR ITEM 103=  0.5541
CORRELATION FOR ITEM 104=  0.5700
CORRELATION FOR ITEM 105=  0.6417
CORRELATION FOR ITEM 106=  0.6414
CORRELATION FOR ITEM 107=  0.7162
CORRELATION FOR ITEM 108=  0.4346
CORRELATION FOR ITEM 109=  0.4644
CORRELATION FOR ITEM 110=  0.4865
CORRELATION FOR ITEM 111=  0.5271
CORRELATION FOR ITEM 112=  0.7773
CORRELATION FOR ITEM 113=  0.6869
CORRELATION FOR ITEM 114=  0.6402
CORRELATION FOR ITEM 115=  0.6460
CORRELATION FOR ITEM 116=  0.4715
CORRELATION FOR ITEM 117=  0.4507
CORRELATION FOR ITEM 118=  0.5814
CORRELATION FOR ITEM 119=  0.7212
CORRELATION FOR ITEM 120=  0.6087
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 121=  0.3939
CORRELATION FOR ITEM 122=  0.5363
CORRELATION FOR ITEM 123=  0.4020
CORRELATION FOR ITEM 124=  0.5746
CORRELATION FOR ITEM 125=  0.3542
CORRELATION FOR ITEM 126=  0.2626
CORRELATION FOR ITEM 127=  0.2564
CORRELATION FOR ITEM 128=  0.3097
CORRELATION FOR ITEM 129=  0.3772
CORRELATION FOR ITEM 130=  0.5149
CORRELATION FOR ITEM 131=  0.3231
CORRELATION FOR ITEM 132=  0.3943
CORRELATION FOR ITEM 133=  0.6427
CORRELATION FOR ITEM 134=  0.3952
CORRELATION FOR ITEM 135=  0.6012
CORRELATION FOR ITEM 136=  0.5292
CORRELATION FOR ITEM 137=  0.5019
CORRELATION FOR ITEM 138=  0.1002
CORRELATION FOR ITEM 139=  0.2331
CORRELATION FOR ITEM 140=  0.6341
CORRELATION FOR ITEM 141=  0.6394
CORRELATION FOR ITEM 142=  0.4753
CORRELATION FOR ITEM 143=  0.3347
CORRELATION FOR ITEM 144=  0.3316
CORRELATION FOR ITEM 145=  0.6161
CORRELATION FOR ITEM 146=  0.4973
CORRELATION FOR ITEM 147=  0.4670
CORRELATION FOR ITEM 148=  0.4620
CORRELATION FOR ITEM 149=  0.4700
CORRELATION FOR ITEM 150=  0.4161
CORRELATION FOR ITEM 151=  0.4466
CORRELATION FOR ITEM 152=  0.4106
CORRELATION FOR ITEM 153=  0.4481
CORRELATION FOR ITEM 154=  0.4476
CORRELATION FOR ITEM 155=  0.5395
CORRELATION FOR ITEM 156=  0.4517
CORRELATION FOR ITEM 157=  0.6000
CORRELATION FOR ITEM 158=  0.4757
CORRELATION FOR ITEM 159=  0.5091
CORRELATION FOR ITEM 160=  0.5018
CORRELATION FOR ITEM 161=  0.6375
CORRELATION FOR ITEM 162=  0.6955
CORRELATION FOR ITEM 163=  0.6565
CORRELATION FOR ITEM 164=  0.6754
CORRELATION FOR ITEM 165=  0.4798
CORRELATION FOR ITEM 166=  0.7575
CORRELATION FOR ITEM 167=  0.6437
CORRELATION FOR ITEM 168=  0.5816
CORRELATION FOR ITEM 169=  0.7210
CORRELATION FOR ITEM 170=  0.5651
CORRELATION FOR ITEM 171=  0.7003
CORRELATION FOR ITEM 172=  0.6481
CORRELATION FOR ITEM 173=  0.6059
CORRELATION FOR ITEM 174=  0.5754
CORRELATION FOR ITEM 175=  0.5356
CORRELATION FOR ITEM 176=  0.5211
CORRELATION FOR ITEM 177=  0.1612
CORRELATION FOR ITEM 178=  0.5496
CORRELATION FOR ITEM 179=  0.4703
CORRELATION FOR ITEM 180=  0.6423
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 181=  0.5215
CORRELATION FOR ITEM 182=  0.6300
CORRELATION FOR ITEM 183=  0.0000
CORRELATION FOR ITEM 184=  0.8079
CORRELATION FOR ITEM 185=  0.0724
CORRELATION FOR ITEM 186=  0.7410
CORRELATION FOR ITEM 187=  0.6187
CORRELATION FOR ITEM 188=  0.3503
CORRELATION FOR ITEM 189=  0.3765
CORRELATION FOR ITEM 190= -0.0197
CORRELATION FOR ITEM 191=  0.2916
CORRELATION FOR ITEM 192=  0.8629
CORRELATION FOR ITEM 193=  0.0000
CORRELATION FOR ITEM 194=  0.0000
CORRELATION FOR ITEM 195=  0.7405
CORRELATION FOR ITEM 196=  0.4960
CORRELATION FOR ITEM 197=  0.2132
CORRELATION FOR ITEM 198= -0.0079
CORRELATION FOR ITEM 199=  0.6400
CORRELATION FOR ITEM 200=  0.4722
CORRELATION FOR ITEM 201=  0.2423
CORRELATION FOR ITEM 202=  0.4156
CORRELATION FOR ITEM 203= -0.0039
CORRELATION FOR ITEM 204= -0.0046
CORRELATION FOR ITEM 205=  0.5365
CORRELATION FOR ITEM 206=  0.2360
CORRELATION FOR ITEM 207=  0.6317
CORRELATION FOR ITEM 208=  0.5973
CORRELATION FOR ITEM 209=  0.5055
CORRELATION FOR ITEM 210= -0.0334
CORRELATION FOR ITEM 211=  0.6284
CORRELATION FOR ITEM 212= -0.0243
CORRELATION FOR ITEM 213=  0.7689
CORRELATION FOR ITEM 214=  0.0000
CORRELATION FOR ITEM 215=  0.7986
CORRELATION FOR ITEM 216=  0.4735
CORRELATION FOR ITEM 217=  0.0000
CORRELATION FOR ITEM 218= -0.0075
CORRELATION FOR ITEM 219= -0.0124
CORRELATION FOR ITEM 220=  0.7458
CORRELATION FOR ITEM 221=  0.6401
CORRELATION FOR ITEM 222=  0.5324
CORRELATION FOR ITEM 223=  0.6154
CORRELATION FOR ITEM 224=  0.6614
CORRELATION FOR ITEM 225=  0.6593
CORRELATION FOR ITEM 226=  0.7430
CORRELATION FOR ITEM 227=  0.3153
CORRELATION FOR ITEM 228=  0.6049
CORRELATION FOR ITEM 229=  0.7048
CORRELATION FOR ITEM 230=  0.4380
CORRELATION FOR ITEM 231=  0.4878
CORRELATION FOR ITEM 232=  0.1533
CORRELATION FOR ITEM 233=  0.6953
CORRELATION FOR ITEM 234=  0.7329
CORRELATION FOR ITEM 235=  0.9807
CORRELATION FOR ITEM 236=  0.7273
CORRELATION FOR ITEM 237=  0.4845
CORRELATION FOR ITEM 238=  0.0000
CORRELATION FOR ITEM 239=  0.0000
CORRELATION FOR ITEM 240=  0.8759
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 241=  0.5468
CORRELATION FOR ITEM 242=  0.0000
CORRELATION FOR ITEM 243=  0.4368
CORRELATION FOR ITEM 244=  0.6013
CORRELATION FOR ITEM 245=  0.3294
CORRELATION FOR ITEM 246=  0.3020
CORRELATION FOR ITEM 247=  0.3267
CORRELATION FOR ITEM 248=  0.3254
CORRELATION FOR ITEM 249=  0.3994
CORRELATION FOR ITEM 250=  0.7226
CORRELATION FOR ITEM 251=  0.5644
CORRELATION FOR ITEM 252=  0.7378
CORRELATION FOR ITEM 253=  0.7727
CORRELATION FOR ITEM 254=  0.5157
CORRELATION FOR ITEM 255=  0.3989
CORRELATION FOR ITEM 256=  0.3297
CORRELATION FOR ITEM 257=  0.5817
CORRELATION FOR ITEM 258=  0.6866
CORRELATION FOR ITEM 259=  0.8230
CORRELATION FOR ITEM 260= -0.0026
CORRELATION FOR ITEM 261= -0.0109
CORRELATION FOR ITEM 262=  0.3520
CORRELATION FOR ITEM 263=  0.2861
CORRELATION FOR ITEM 264=  0.4511
CORRELATION FOR ITEM 265=  0.5474
CORRELATION FOR ITEM 266=  0.3265
CORRELATION FOR ITEM 267=  0.3603
CORRELATION FOR ITEM 268=  0.3665
CORRELATION FOR ITEM 269=  0.3587
CORRELATION FOR ITEM 270=  0.4541
CORRELATION FOR ITEM 271=  0.3103
CORRELATION FOR ITEM 272=  0.2053
CORRELATION FOR ITEM 273=  0.1415
CORRELATION FOR ITEM 274=  0.3492
CORRELATION FOR ITEM 275=  0.6094
CORRELATION FOR ITEM 276=  0.7132
CORRELATION FOR ITEM 277=  0.6486
CORRELATION FOR ITEM 278=  0.3356
CORRELATION FOR ITEM 279=  0.5097
CORRELATION FOR ITEM 280=  0.6711
CORRELATION FOR ITEM 281=  0.2443
CORRELATION FOR ITEM 282=  0.1192
CORRELATION FOR ITEM 283=  0.6972
CORRELATION FOR ITEM 284=  0.0227
CORRELATION FOR ITEM 285=  0.6630
CORRELATION FOR ITEM 286=  0.5775
CORRELATION FOR ITEM 287=  0.6918
CORRELATION FOR ITEM 288=  0.6679
CORRELATION FOR ITEM 289=  0.6711
CORRELATION FOR ITEM 290=  0.5172
CORRELATION FOR ITEM 291=  0.7409
CORRELATION FOR ITEM 292=  0.5593
CORRELATION FOR ITEM 293=  0.7059
CORRELATION FOR ITEM 294=  0.6962
CORRELATION FOR ITEM 295=  0.7184
CORRELATION FOR ITEM 296=  0.5939
CORRELATION FOR ITEM 297=  0.6571
CORRELATION FOR ITEM 298=  0.3952
CORRELATION FOR ITEM 299=  0.3772
CORRELATION FOR ITEM 300=  0.4307
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 301=  0.6252
CORRELATION FOR ITEM 302=  0.4503
CORRELATION FOR ITEM 303=  0.7411
CORRELATION FOR ITEM 304=  0.4402
CORRELATION FOR ITEM 305=  0.5287
CORRELATION FOR ITEM 306=  0.5596
CORRELATION FOR ITEM 307=  0.3192
CORRELATION FOR ITEM 308=  0.5103
CORRELATION FOR ITEM 309=  0.2346
CORRELATION FOR ITEM 310=  0.5051
CORRELATION FOR ITEM 311=  0.4448
CORRELATION FOR ITEM 312=  0.4698
CORRELATION FOR ITEM 313=  0.7399
CORRELATION FOR ITEM 314=  0.6919
CORRELATION FOR ITEM 315=  0.5682
CORRELATION FOR ITEM 316=  0.7402
CORRELATION FOR ITEM 317=  0.8927
CORRELATION FOR ITEM 318=  0.2375
CORRELATION FOR ITEM 319=  0.7473
CORRELATION FOR ITEM 320=  0.4173
CORRELATION FOR ITEM 321=  0.4412
CORRELATION FOR ITEM 322=  0.6191
CORRELATION FOR ITEM 323=  0.7473
CORRELATION FOR ITEM 324=  0.9013
CORRELATION FOR ITEM 325=  0.6286
CORRELATION FOR ITEM 326=  0.6429
CORRELATION FOR ITEM 327=  0.5720
CORRELATION FOR ITEM 328=  0.5629
CORRELATION FOR ITEM 329=  0.2236
CORRELATION FOR ITEM 330=  0.3399
CORRELATION FOR ITEM 331= -0.0145
CORRELATION FOR ITEM 332=  0.6297
CORRELATION FOR ITEM 333=  0.3836
CORRELATION FOR ITEM 334=  0.3750
CORRELATION FOR ITEM 335=  0.5966
CORRELATION FOR ITEM 336=  0.4923
CORRELATION FOR ITEM 337=  0.5542
CORRELATION FOR ITEM 338=  0.4417
CORRELATION FOR ITEM 339=  0.6101
CORRELATION FOR ITEM 340=  0.7130
CORRELATION FOR ITEM 341=  0.3936
CORRELATION FOR ITEM 342=  0.7808
CORRELATION FOR ITEM 343=  0.3712
CORRELATION FOR ITEM 344=  0.2559
CORRELATION FOR ITEM 345=  0.7580
CORRELATION FOR ITEM 346=  0.7696
CORRELATION FOR ITEM 347=  0.3501
CORRELATION FOR ITEM 348=  0.7769
CORRELATION FOR ITEM 349= -0.0318
CORRELATION FOR ITEM 350=  0.4335
CORRELATION FOR ITEM 351=  0.5201
CORRELATION FOR ITEM 352=  0.4428
CORRELATION FOR ITEM 353=  0.3149
CORRELATION FOR ITEM 354=  0.5615
CORRELATION FOR ITEM 355=  0.1432
CORRELATION FOR ITEM 356= -0.0111
CORRELATION FOR ITEM 357=  0.2919
CORRELATION FOR ITEM 358=  0.3705
CORRELATION FOR ITEM 359=  0.3018
CORRELATION FOR ITEM 360=  0.6677
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 361=  0.6878
CORRELATION FOR ITEM 362=  0.7655
CORRELATION FOR ITEM 363=  0.6737
CORRELATION FOR ITEM 364=  0.3499
CORRELATION FOR ITEM 365= -0.0152
CORRELATION FOR ITEM 366=  0.4462
CORRELATION FOR ITEM 367=  0.6934
CORRELATION FOR ITEM 368=  0.5647
CORRELATION FOR ITEM 369=  0.6228
CORRELATION FOR ITEM 370=  0.7961
CORRELATION FOR ITEM 371=  0.6905
CORRELATION FOR ITEM 372= -0.0233
CORRELATION FOR ITEM 373=  0.7841
CORRELATION FOR ITEM 374=  0.7459
CORRELATION FOR ITEM 375=  0.7450
CORRELATION FOR ITEM 376=  0.7253
CORRELATION FOR ITEM 377=  0.7520
CORRELATION FOR ITEM 378=  0.6301
CORRELATION FOR ITEM 379=  0.4996
CORRELATION FOR ITEM 380=  0.3370
CORRELATION FOR ITEM 381= -0.0111
CORRELATION FOR ITEM 382=  0.3252
CORRELATION FOR ITEM 383=  0.5753
CORRELATION FOR ITEM 384=  0.8139
CORRELATION FOR ITEM 385=  0.7044
CORRELATION FOR ITEM 386=  0.4891
CORRELATION FOR ITEM 387=  0.6185
CORRELATION FOR ITEM 388=  0.4894
CORRELATION FOR ITEM 389=  0.6264
CORRELATION FOR ITEM 390=  0.6344
CORRELATION FOR ITEM 391=  0.5477
CORRELATION FOR ITEM 392=  0.5196
CORRELATION FOR ITEM 393=  0.6295
CORRELATION FOR ITEM 394=  0.5369
CORRELATION FOR ITEM 395=  0.6750
CORRELATION FOR ITEM 396=  0.6847
CORRELATION FOR ITEM 397=  0.5491
CORRELATION FOR ITEM 398=  0.6517
CORRELATION FOR ITEM 399=  0.6194
CORRELATION FOR ITEM 400=  0.4719
CORRELATION FOR ITEM 401=  0.6759
CORRELATION FOR ITEM 402=  0.2153
CORRELATION FOR ITEM 403=  0.1352
CORRELATION FOR ITEM 404=  0.5063
CORRELATION FOR ITEM 405=  0.4142
CORRELATION FOR ITEM 406=  0.6619
CORRELATION FOR ITEM 407=  0.7264
CORRELATION FOR ITEM 408=  0.7050
CORRELATION FOR ITEM 409=  0.6640
CORRELATION FOR ITEM 410=  0.5175
CORRELATION FOR ITEM 411=  0.4722
CORRELATION FOR ITEM 412=  0.6207
CORRELATION FOR ITEM 413=  0.6381
CORRELATION FOR ITEM 414=  0.6808
CORRELATION FOR ITEM 415=  0.5686
CORRELATION FOR ITEM 416=  0.6180
CORRELATION FOR ITEM 417= -0.0233
CORRELATION FOR ITEM 418=  0.6215
CORRELATION FOR ITEM 419=  0.5801
CORRELATION FOR ITEM 420=  0.4374
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 421=  0.1519
CORRELATION FOR ITEM 422=  0.4598
CORRELATION FOR ITEM 423=  0.3700
CORRELATION FOR ITEM 424=  0.3277
CORRELATION FOR ITEM 425=  0.0439
CORRELATION FOR ITEM 426=  0.6930
CORRELATION FOR ITEM 427=  0.6018
CORRELATION FOR ITEM 428=  0.3206
CORRELATION FOR ITEM 429=  0.6517
CORRELATION FOR ITEM 430=  0.3698
CORRELATION FOR ITEM 431=  0.6679
CORRELATION FOR ITEM 432=  0.0000
CORRELATION FOR ITEM 433=  0.0000
CORRELATION FOR ITEM 434=  0.5510
CORRELATION FOR ITEM 435=  0.6428
CORRELATION FOR ITEM 436=  0.6471
CORRELATION FOR ITEM 437=  0.6671
CORRELATION FOR ITEM 438=  0.3993
CORRELATION FOR ITEM 439=  0.4746
CORRELATION FOR ITEM 440=  0.3378
CORRELATION FOR ITEM 441=  0.3412
CORRELATION FOR ITEM 442=  0.4533
CORRELATION FOR ITEM 443=  0.4600
CORRELATION FOR ITEM 444=  0.6456
CORRELATION FOR ITEM 445=  0.6956
CORRELATION FOR ITEM 446=  0.7961
CORRELATION FOR ITEM 447=  0.6586
CORRELATION FOR ITEM 448=  0.8060
CORRELATION FOR ITEM 449=  0.7542
CORRELATION FOR ITEM 450=  0.6379
CORRELATION FOR ITEM 451=  0.7330
CORRELATION FOR ITEM 452=  0.5455
CORRELATION FOR ITEM 453=  0.6258
CORRELATION FOR ITEM 454=  0.5958
CORRELATION FOR ITEM 455=  0.6341
CORRELATION FOR ITEM 456=  0.5591
CORRELATION FOR ITEM 457=  0.4955
CORRELATION FOR ITEM 458=  0.6691
CORRELATION FOR ITEM 459=  0.5595
CORRELATION FOR ITEM 460=  0.5677
CORRELATION FOR ITEM 461=  0.6416
CORRELATION FOR ITEM 462=  0.6350
CORRELATION FOR ITEM 463=  0.3025
CORRELATION FOR ITEM 464=  0.2249
CORRELATION FOR ITEM 465=  0.2501
CORRELATION FOR ITEM 466=  0.2199
CORRELATION FOR ITEM 467=  0.5178
CORRELATION FOR ITEM 468=  0.5276
CORRELATION FOR ITEM 469=  0.3732
CORRELATION FOR ITEM 470=  0.3547
CORRELATION FOR ITEM 471=  0.7898
CORRELATION FOR ITEM 472=  0.4649
CORRELATION FOR ITEM 473=  0.8321
CORRELATION FOR ITEM 474=  0.8193
CORRELATION FOR ITEM 475=  0.9306
CORRELATION FOR ITEM 476=  0.7067
CORRELATION FOR ITEM 477=  0.6923
CORRELATION FOR ITEM 478=  0.9485
CORRELATION FOR ITEM 479=  0.8360
CORRELATION FOR ITEM 480=  0.8768
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 481=  0.4761
CORRELATION FOR ITEM 482=  0.2216
CORRELATION FOR ITEM 483=  0.8063
CORRELATION FOR ITEM 484=  0.4932
CORRELATION FOR ITEM 485=  0.0000
CORRELATION FOR ITEM 486=  0.7259
CORRELATION FOR ITEM 487=  0.6196
CORRELATION FOR ITEM 488= -0.0102
CORRELATION FOR ITEM 489=  0.7929
CORRELATION FOR ITEM 490=  0.6343
CORRELATION FOR ITEM 491=  0.9313
CORRELATION FOR ITEM 492=  0.7254
CORRELATION FOR ITEM 493=  0.0000
CORRELATION FOR ITEM 494=  0.8430
CORRELATION FOR ITEM 495=  0.5746
CORRELATION FOR ITEM 496=  0.6895
CORRELATION FOR ITEM 497=  0.6647
CORRELATION FOR ITEM 498=  0.7734
CORRELATION FOR ITEM 499=  0.6778
CORRELATION FOR ITEM 500=  0.4322
CORRELATION FOR ITEM 501=  0.7399
CORRELATION FOR ITEM 502=  0.7635
CORRELATION FOR ITEM 503=  0.4055
CORRELATION FOR ITEM 504=  0.8573
CORRELATION FOR ITEM 505=  0.5694
CORRELATION FOR ITEM 506=  0.6207
CORRELATION FOR ITEM 507=  0.5451
CORRELATION FOR ITEM 508=  0.4590
CORRELATION FOR ITEM 509=  0.6712
CORRELATION FOR ITEM 510=  0.5517
CORRELATION FOR ITEM 511=  0.4360
CORRELATION FOR ITEM 512=  0.4940
CORRELATION FOR ITEM 513=  0.7175
CORRELATION FOR ITEM 514=  0.6901
CORRELATION FOR ITEM 515=  0.5356
CORRELATION FOR ITEM 516=  0.3147
CORRELATION FOR ITEM 517=  0.5061
CORRELATION FOR ITEM 518=  0.5351
CORRELATION FOR ITEM 519=  0.0000
CORRELATION FOR ITEM 520=  0.3565
CORRELATION FOR ITEM 521=  0.5623
CORRELATION FOR ITEM 522=  0.6753
CORRELATION FOR ITEM 523=  0.6150
CORRELATION FOR ITEM 524=  0.7216
CORRELATION FOR ITEM 525=  0.6095
CORRELATION FOR ITEM 526=  0.3900
CORRELATION FOR ITEM 527=  0.6765
CORRELATION FOR ITEM 528=  0.5009
CORRELATION FOR ITEM 529=  0.6152
CORRELATION FOR ITEM 530=  0.4910
CORRELATION FOR ITEM 531=  0.7570
CORRELATION FOR ITEM 532=  0.5143
CORRELATION FOR ITEM 533=  0.6775
CORRELATION FOR ITEM 534=  0.4691
CORRELATION FOR ITEM 535=  0.5898
CORRELATION FOR ITEM 536=  0.6126
CORRELATION FOR ITEM 537=  0.6366
CORRELATION FOR ITEM 538=  0.5914
CORRELATION FOR ITEM 539=  0.5713
CORRELATION FOR ITEM 540=  0.5223
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 541=  0.5819
CORRELATION FOR ITEM 542=  0.4637
CORRELATION FOR ITEM 543=  0.9700
CORRELATION FOR ITEM 544=  0.3343
CORRELATION FOR ITEM 545=  0.5482
CORRELATION FOR ITEM 546=  0.9227
CORRELATION FOR ITEM 547=  0.7172
CORRELATION FOR ITEM 548=  0.5595
CORRELATION FOR ITEM 549=  0.3627
CORRELATION FOR ITEM 550=  0.0124
CORRELATION FOR ITEM 551=  0.3754
CORRELATION FOR ITEM 552=  0.3914
CORRELATION FOR ITEM 553=  0.5171
CORRELATION FOR ITEM 554=  0.5180
CORRELATION FOR ITEM 555=  0.7724
CORRELATION FOR ITEM 556=  0.9634
CORRELATION FOR ITEM 557=  0.6249
CORRELATION FOR ITEM 558=  0.6421
CORRELATION FOR ITEM 559=  0.3629
CORRELATION FOR ITEM 560=  0.5898
CORRELATION FOR ITEM 561=  0.8697
CORRELATION FOR ITEM 562=  0.6359
CORRELATION FOR ITEM 563=  0.3480
CORRELATION FOR ITEM 564=  0.3545
CORRELATION FOR ITEM 565=  0.4589
CORRELATION FOR ITEM 566=  0.7327
CORRELATION FOR ITEM 567=  0.7899
CORRELATION FOR ITEM 568=  0.1295
CORRELATION FOR ITEM 569=  0.7922
CORRELATION FOR ITEM 570=  0.8190
CORRELATION FOR ITEM 571=  0.3114
CORRELATION FOR ITEM 572=  0.2449
CORRELATION FOR ITEM 573=  0.1172
CORRELATION FOR ITEM 574=  0.9132
CORRELATION FOR ITEM 575=  0.2720
CORRELATION FOR ITEM 576=  0.5498
CORRELATION FOR ITEM 577=  0.5079
CORRELATION FOR ITEM 578=  0.5120
CORRELATION FOR ITEM 579=  0.3413
CORRELATION FOR ITEM 580=  0.1056
CORRELATION FOR ITEM 581=  0.1652
CORRELATION FOR ITEM 582=  0.3074
CORRELATION FOR ITEM 583=  0.0687
CORRELATION FOR ITEM 584= -0.0392
CORRELATION FOR ITEM 585=  0.0115
CORRELATION FOR ITEM 586=  0.2914
CORRELATION FOR ITEM 587=  0.1242
CORRELATION FOR ITEM 588=  0.3959
CORRELATION FOR ITEM 589=  0.0303
CORRELATION FOR ITEM 590=  0.4963
CORRELATION FOR ITEM 591=  0.2473
CORRELATION FOR ITEM 592=  0.4376
CORRELATION FOR ITEM 593=  0.5626
CORRELATION FOR ITEM 594=  0.5424
CORRELATION FOR ITEM 595=  0.5986
CORRELATION FOR ITEM 596=  0.5005
CORRELATION FOR ITEM 597=  0.2620
CORRELATION FOR ITEM 598=  0.3631
CORRELATION FOR ITEM 599=  0.7353
CORRELATION FOR ITEM 600=  0.3305
```

(5) Table 20 (continued)

```
CORRELATION FOR ITEM 601=  0.0649
CORRELATION FOR ITEM 602=  0.4863
CORRELATION FOR ITEM 603=  0.3653
CORRELATION FOR ITEM 604=  0.4173
CORRELATION FOR ITEM 605=  0.7687
CORRELATION FOR ITEM 606=  0.3173
CORRELATION FOR ITEM 607=  0.5758
CORRELATION FOR ITEM 608=  0.2345
CORRELATION FOR ITEM 609=  0.6432
CORRELATION FOR ITEM 610=  0.6462
CORRELATION FOR ITEM 611= -0.0638
CORRELATION FOR ITEM 612=  0.1447
CORRELATION FOR ITEM 613=  0.5213
CORRELATION FOR ITEM 614=  0.4002
CORRELATION FOR ITEM 615=  0.6331
CORRELATION FOR ITEM 616=  0.2530
CORRELATION FOR ITEM 617=  0.0280
CORRELATION FOR ITEM 618=  0.6551
CORRELATION FOR ITEM 619=  0.6175
CORRELATION FOR ITEM 620=  0.4400
CORRELATION FOR ITEM 621=  0.6966
CORRELATION FOR ITEM 622=  0.4149
```

(6)

Table 21. Identification Numbers of 88 Jobs for Which Three Sets of OAI Ratings were Obtained[a]

Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number	Sample Number	ID Number
1	2	23	412	45	502	67	761
2	8	24	414	46	503	68	762
3	9	25	418	47	541	69	763
4	10	26	420	48	542	70	764
5	13	27	424	49	555	71	765
6	16	28	426	50	576	72	766
7	17	29	433	51	579	73	800
8	24	30	435	52	615	74	801
9	26	31	436	53	674	75	802
10	28	32	440	54	680	76	803
11	31	33	446	55	685	77	804
12	32	34	449	56	688	78	805
13	54	35	451	57	695	79	806
14	80	36	460	58	697	80	807
15	88	37	462	59	728	81	809
16	194	38	464	60	747	82	810
17	211	39	467	61	748	83	813
18	236	40	479	62	749	84	815
19	238	41	493	63	753	85	817
20	340	42	494	64	755	86	820
21	402	43	500	65	756	87	821
22	404	44	501	66	761	88	822

NOTE: The first set of ratings was obtained from 13 raters; the second set, from 12 raters; and the third set, from 15 raters. The number of jobs rated by each analyst in each set ranged from 1 to 28.

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[a] See appropriate ID numbers in Appendix B for job titles and DOT codes.

7) Table 22. Reliability Estimates for the OAI Work Elements (Items) Based on the Ratings of 88 Job by Three Sets of Analysts (using an analysis-of-variance procedure)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS*	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS*	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
1	0.8493	0.6529	0.8544	0.6617
2	0.8194	0.6020	0.8234	0.6084
3	0.8359	0.6294	0.8413	0.6386
4	0.8511	0.6559	0.8593	0.6706
5	0.7502	0.5002	0.7524	0.5033
6	0.8699	0.6903	0.8747	0.6994
7	0.8122	0.5904	0.8164	0.5971
8	0.7963	0.5517	0.7897	0.5559
9	0.7495	0.4994	0.7487	0.4983
10	0.8414	0.6347	0.8456	0.6461
11	0.8076	0.5833	0.8080	0.5839
12	0.6021	0.3352	0.6023	0.3355
13	0.8989	0.7479	0.8996	0.7494
14	0.8919	0.7333	0.8916	0.7328
15	0.9515	0.8673	0.9513	0.8668
16	0.9240	0.8020	0.9241	0.8022
17	0.8015	0.5738	0.8003	0.5718
18	0.8904	0.7303	0.8909	0.7311
19	0.8931	0.7357	0.8944	0.7384
20	0.8735	0.6972	0.8722	0.6946
21	0.9611	0.8917	0.9619	0.8939
22	0.8770	0.7039	0.8763	0.7025
23	0.8311	0.6212	0.8306	0.6204
24	0.8449	0.6449	0.8442	0.6436
25	0.7713	0.5293	0.7734	0.5323

*Interclass coefficient.

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
26	0.7531	0.5042	0.7563	0.5085
27	0.4593	0.2207	0.4555	0.2181
28	0.8551	0.6629	0.8561	0.6648
29	0.5099	0.2575	0.5079	0.2560
30	0.8225	0.6070	0.8250	0.6111
31	0.6928	0.4291	0.6940	0.4305
32	0.5712	0.3075	0.5821	0.3171
33	0.5071	0.2554	0.5180	0.2638
34	0.6981	0.4353	0.6957	0.4325
35	0.6419	0.3740	0.6557	0.3883
36	0.6935	0.4300	0.6907	0.4267
37	0.4971	0.2478	0.5093	0.2571
38	0.7410	0.4882	0.7480	0.4973
39	0.6679	0.4023	0.6713	0.4051
40	0.7379	0.4841	0.7496	0.4994
41	0.3237	0.1376	0.3282	0.1401
42	0.6288	0.3609	0.6386	0.3707
43	-0.0034	-0.0011	0.0143	0.0048
44	0.7528	0.5038	0.7590	0.5122
45	0.7912	0.5581	0.7930	0.5609
46	0.7457	0.4943	0.7512	0.5016
47	0.6827	0.4177	0.6897	0.4256
48	0.3763	0.1674	0.3991	0.1813
49	0.7874	0.5525	0.7959	0.5652
50	0.8720	0.6943	0.8718	0.6939

(7) Table 22 (continued)

PAGE NUMBER 3

RELIABILITY ESTIMATES OF 622 USI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTERCLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTERCLASS CORRELATION COEFFICIENT
51	0.8801	0.7102	0.8795	0.7087
52	0.8756	0.7012	0.8749	0.6997
53	0.8806	0.7108	0.8799	0.7095
54	0.6735	0.4074	0.6735	0.4074
55	0.7963	0.5658	0.7972	0.5671
56	0.7476	0.4964	0.7501	0.5001
57	0.8988	0.7474	0.8976	0.7451
58	0.8297	0.6190	0.8294	0.6176
59	0.6222	0.3544	0.6206	0.3528
60	0.8417	0.6394	0.8416	0.6391
61	0.8592	0.6703	0.8605	0.6728
62	0.7993	0.5704	0.7983	0.5689
63	0.8523	0.6548	0.8555	0.6638
64	0.9722	0.9209	0.9729	0.9230
65	0.7467	0.4956	0.7484	0.4978
66	0.7652	0.5207	0.7633	0.5180
67	0.9856	0.9603	0.9895	0.9671
68	0.6820	0.4168	0.6853	0.4212
69	0.8972	0.7442	0.8979	0.7457
70	0.9434	0.8476	0.9430	0.8465
71	0.8968	0.7433	0.8984	0.7466
72	0.9174	0.7873	0.9167	0.7858
73	0.9390	0.8368	0.9383	0.8365
74	0.7078	0.4468	0.7175	0.4584
75	0.8702	0.6903	0.8725	0.6953

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
76	[illegible]	0.8356	0.7393	0.8376
77	0.9517	0.8678	0.9517	0.9680
78	0.8443	0.6439	0.8450	0.6450
79	0.7463	0.4930	0.7442	0.4923
80	0.6787	0.4132	0.6782	0.4126
81	0.7870	0.5519	0.7922	0.5595
82	0.8307	0.6205	0.8369	0.6310
83	0.7381	0.5536	0.7409	0.5577
84	0.7405	0.4875	0.7444	0.4926
85	0.8322	0.6231	0.8321	0.6230
86	0.7346	0.5484	0.7834	0.5466
87	0.7950	0.5639	0.9060	0.5807
88	0.6454	0.3419	0.6497	0.3420
89	0.7934	0.5466	0.7892	0.5551
90	0.4171	0.1926	0.4574	0.2263
91	0.6415	0.3736	0.6511	0.3835
92	0.3482	0.1512	0.3693	0.1633
93	0.8609	0.6736	0.8639	0.6790
94	0.7561	0.5081	0.7571	0.5095
95	0.9925	0.7345	0.8916	0.7327
96	0.8323	0.6233	0.8310	0.6211
97	0.9662	0.6833	0.8549	0.6407
98	0.7619	0.5161	0.7638	0.5187
99	0.6265	0.3586	0.6229	0.3551
100	0.8866	0.7226	0.8856	0.7206

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 CAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
101	0.8968	0.7241	0.8893	0.7261
102	0.8321	0.6229	0.8310	0.6211
103	0.9255	0.8055	0.9252	0.8047
104	0.6571	0.3898	0.6643	0.3974
105	0.6994	0.4368	0.7018	0.4396
106	0.8244	0.6101	0.8243	0.6132
107	0.8399	0.6361	0.8398	0.6361
108	0.7051	0.4435	0.7201	0.4617
109	0.8399	0.6363	0.8423	0.6404
110	0.6042	0.3372	0.6000	0.3333
111	0.8316	0.6221	0.8321	0.6229
112	0.8816	0.7129	0.8827	0.7149
113	0.8404	0.6353	0.8452	0.6454
114	0.8125	0.5909	0.8133	0.5922
115	0.8495	0.6530	0.8509	0.6554
116	0.2989	0.1244	0.3138	0.1323
117	0.6521	0.3846	0.6605	0.3934
118	0.7692	0.5262	0.7706	0.5282
119	0.8552	0.6631	0.8567	0.6659
120	0.6292	0.3613	0.6302	0.3622
121	0.5964	0.3301	0.5951	0.3298
122	0.7949	0.5635	0.8004	0.5726
123	0.7677	0.5242	0.7745	0.5338
124	0.6926	0.4289	0.6975	0.4346
125	0.6525	0.3850	0.6610	0.3947

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 ORAL ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
126	0.3486	0.1514	0.3592	0.1574
127	0.4234	0.1966	0.4235	0.1967
128	0.3838	0.1719	0.3844	0.1723
129	0.5997	0.3331	0.5961	0.3297
130	0.7537	0.5050	0.7615	0.5156
131	0.3439	0.1410	0.3391	0.1460
132	0.5965	0.3301	0.5929	0.3264
133	0.7449	0.4933	0.7429	0.4905
134	0.5835	0.3183	0.5801	0.3153
135	0.7954	0.5496	0.7849	0.5487
136	0.6630	0.3960	0.6601	0.3930
137	0.7250	0.4678	0.7222	0.4643
138	0.3627	0.1595	0.3580	0.1568
139	0.2261	0.0888	0.2480	0.0990
140	0.8241	0.6096	0.8233	0.6084
141	0.7731	0.5318	0.7713	0.5299
142	0.6681	0.4015	0.6662	0.3995
143	0.6959	0.4213	0.6974	0.4345
144	0.5994	0.3328	0.5986	0.3321
145	0.7580	0.5100	0.7619	0.5162
146	0.6989	0.4246	0.6953	0.4205
147	0.7108	0.4503	0.7136	0.4534
148	0.5166	0.2627	0.5171	0.2630
149	0.5377	0.2794	0.5329	0.2755
150	0.4778	0.2337	0.4738	0.2309

(7) Table 22 (continued)

PAGE NUMBER 7

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
151	0.4495	0.2140	0.4480	0.2129
152	0.5046	0.2534	0.5006	0.2504
153	0.5598	0.2976	0.5656	0.3027
154	0.5171	0.2630	0.5423	0.2831
155	0.7445	0.4927	0.7458	0.4944
156	0.7146	0.4549	0.7114	0.4510
157	0.8074	0.5829	0.8057	0.5803
158	0.6444	0.3766	0.6419	0.3740
159	0.7338	0.4789	0.7316	0.4760
160	0.7493	0.4991	0.7511	0.5015
161	0.7850	0.5489	0.7839	0.5474
162	0.8792	0.7081	0.8792	0.7091
163	0.8237	0.6090	0.8257	0.6129
164	0.9473	0.8570	0.9472	0.8567
165	0.6575	0.3902	0.6897	0.4256
166	0.8358	0.6292	0.8346	0.6272
167	0.8403	0.6368	0.8442	0.6437
168	0.7220	0.4640	0.7263	0.4694
169	0.8591	0.6702	0.8589	0.6699
170	0.5419	0.2828	0.5434	0.2840
171	0.8928	0.7352	0.8936	0.7368
172	0.8625	0.6765	0.8651	0.6812
173	0.6298	0.3619	0.6277	0.3598
174	0.7110	0.4506	0.7149	0.4553
175	0.7521	0.5028	0.7523	0.5030

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 CAL ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
176	0.7466	0.4954	0.7437	0.4917
177	-0.0920	-0.0289	-0.1046	-0.0326
178	0.5632	0.3906	0.5655	0.3926
179	0.6278	0.3599	0.6277	0.3598
180	0.5225	0.2673	0.5195	0.2649
181	0.7625	0.5170	0.7607	0.5138
182	0.6880	0.4237	0.6875	0.4231
183	0.3256	0.1346	0.3256	0.1346
184	0.9145	0.7809	0.9146	0.7811
185	0.0645	0.0225	0.0624	0.0217
186	0.8754	0.7007	0.8774	0.7045
187	0.8066	0.5817	0.8092	0.5842
188	0.7896	0.5558	0.7946	0.5632
189	0.8497	0.6533	0.8494	0.6528
190	-0.0626	-0.0200	-0.0458	-0.0148
191	0.7201	0.4616	0.7299	0.4689
192	0.8937	0.7370	0.8932	0.7360
193	-0.0357	-0.0116	-0.0264	-0.0083
194	0.0000	-0.0000	-0.0000	-0.0000
195	0.1135	0.0252	0.1136	0.0255
196	0.8045	0.5783	0.8045	0.5783
197	0.6174	0.3497	0.6131	0.3456
198	-0.0221	-0.0073	0.0000	0.0000
199	0.6068	0.3396	0.6192	0.3477
200	0.5244	0.2649	0.5212	0.2662

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 UAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
201	0.6945	0.4311	0.6930	0.4293
202	0.5657	0.3027	0.5648	0.3019
203	0.5890	0.3232	0.5858	0.3204
204	0.5987	0.3321	0.5971	0.3307
205	0.7042	0.4425	0.7110	0.4505
206	-0.0552	-0.0178	-0.0527	-0.0201
207	0.8286	0.6171	0.8314	0.6218
208	0.7687	0.5255	0.7693	0.5264
209	0.8317	0.6223	0.8304	0.6200
210	-0.0823	-0.0262	-0.0714	-0.0227
211	0.6838	0.4189	0.6803	0.4150
212	-0.0184	-0.0061	-0.0276	-0.0090
213	0.7849	0.5487	0.7854	0.5495
214	0.5016	0.2512	0.5081	0.2561
215	0.9033	0.7569	0.9034	0.7572
216	0.7572	0.5097	0.7546	0.5062
217	-0.0224	-0.0074	-0.0192	-0.0063
218	0.3238	0.1376	0.3204	0.1358
219	-0.0413	-0.0134	-0.0392	-0.0127
220	0.2873	0.1185	0.2885	0.1191
221	0.6248	0.3569	0.6225	0.3547
222	0.2616	0.1056	0.2732	0.1114
223	0.5747	0.3105	0.5765	0.3121
224	0.8343	0.6265	0.8347	0.6274
225	0.8252	0.6115	0.8311	0.6213

(7) Table 22 (continued)

PAGE NUMBER 10

RELIABILITY ESTIMATES OF 622 SAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
226	0.8756	0.7012	0.8755	0.7010
227	0.6229	0.3551	0.6208	0.3531
228	0.8757	0.7014	0.8747	0.6994
229	-0.0116	-0.0038	-0.0174	-0.0057
230	0.6226	0.3548	0.6201	0.3524
231	0.7593	0.5126	0.7601	0.5137
232	0.2047	0.0790	0.2003	0.0771
233	-0.0107	-0.0035	-0.0161	-0.0053
234	0.9505	0.8648	0.9500	0.8637
235	0.9650	0.9019	0.9647	0.9010
236	0.9178	0.7882	0.9175	0.7876
237	0.8991	0.7481	0.8993	0.7486
238	0.0000	-0.0000	-0.0000	-0.0000
239	0.6667	0.4000	0.6667	0.4000
240	0.9421	0.8444	0.9421	0.8444
241	0.5853	0.3199	0.5831	0.3180
242	-0.0195	-0.0064	-0.0234	-0.0077
243	0.6447	0.3769	0.6414	0.3735
244	0.5968	0.3304	0.5933	0.3272
245	0.5266	0.2705	0.5241	0.2685
246	0.6489	0.3812	0.6475	0.3798
247	0.4759	0.2324	0.4783	0.2345
248	0.3830	0.1714	0.3800	0.1696
249	0.6064	0.3393	0.6109	0.3435
250	0.7965	0.5661	0.7958	0.5650

(7) Table 22 (continued)

PAGE NUMBER 11

RELIABILITY ESTIMATES OF 622 ORAL ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
251	0.7790	0.5402	0.7777	0.5383
252	0.8609	0.6735	0.8626	0.6767
253	0.8977	0.7453	0.8988	0.7474
254	0.6500	0.3824	0.6563	0.3889
255	0.6556	0.3982	0.6609	0.3938
256	0.3074	0.1289	0.3215	0.1364
257	0.6870	0.4225	0.6879	0.4235
258	0.7845	0.5482	0.7859	0.5502
259	0.8823	0.7143	0.8846	0.7188
260	0.7043	0.4425	0.7056	0.4442
261	0.5372	0.2790	0.5445	0.2850
262	0.3768	0.1678	0.3923	0.1771
263	0.1663	0.0623	0.2050	0.0791
264	0.6405	0.3726	0.6375	0.3696
265	0.6640	0.3972	0.6627	0.3957
266	0.5764	0.3120	0.5845	0.3193
267	0.7609	0.5148	0.7684	0.5251
268	0.6296	0.3617	0.6382	0.3703
269	0.2753	0.1124	0.2934	0.1216
270	0.4625	0.2229	0.5204	0.2656
271	0.5139	0.2606	0.5320	0.2748
272	0.7246	0.4672	0.7236	0.4660
273	0.4150	0.1912	0.4434	0.2098
274	0.4239	0.1969	0.4553	0.2179
275	0.7349	0.4802	0.7357	0.4813

(7) Table 22 (continued)

PAGE NUMBER 12

RELIABILITY ESTIMATES OF 622 DAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
276	0.8251	0.6113	0.8291	0.6179
277	0.7938	0.5619	0.7922	0.5597
278	0.5997	0.3331	0.6048	0.3378
279	0.7625	0.5169	0.7616	0.5157
280	0.7875	0.5526	0.7976	0.5678
281	0.4049	0.1849	0.4003	0.1820
282	0.6228	0.3550	0.6189	0.3511
283	0.4522	0.2158	0.4462	0.2117
284	0.6027	0.3359	0.6139	0.3463
285	0.8705	0.6913	0.8693	0.6892
286	0.7152	0.4557	0.7145	0.4548
287	0.8323	0.6232	0.8303	0.6200
288	0.9243	0.8028	0.9250	0.8043
289	0.7797	0.5412	0.7793	0.5406
290	0.7979	0.5682	0.8025	0.5753
291	0.8976	0.7451	0.8976	0.7451
292	0.3635	0.1599	0.3678	0.1625
293	0.8755	0.7010	0.8801	0.7099
294	0.9405	0.8404	0.9412	0.8422
295	0.8660	0.6829	0.8647	0.6806
296	0.8530	0.6592	0.8516	0.6566
297	0.8007	0.5726	0.8069	0.5821
298	0.4751	0.2319	0.4692	0.2276
299	0.4758	0.2323	0.4803	0.2355
300	0.7274	0.4707	0.7266	0.4697

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
301	0.8213	0.6951	0.8197	0.6025
302	0.1159	0.0419	0.1064	0.0382
303	0.8178	0.5994	0.8168	0.5978
304	0.7020	0.4329	0.6997	0.4372
305	0.6938	0.4303	0.6910	0.4270
306	0.8550	0.6627	0.8535	0.6602
307	0.3369	0.1449	0.3345	0.1435
308	0.2858	0.1177	0.2919	0.1208
309	0.5106	0.2580	0.5207	0.2659
310	0.3919	0.1759	0.3955	0.1791
311	0.8371	0.6314	0.8384	0.6337
312	0.7530	0.5176	0.7614	0.5154
313	0.8637	0.6787	0.8639	0.6790
314	0.9021	0.7543	0.9010	0.7521
315	0.8046	0.5786	0.8031	0.5761
316	0.9225	0.7986	0.9219	0.7974
317	0.9378	0.8341	0.9379	0.8344
318	0.6614	0.3944	0.6603	0.3931
319	0.8369	0.6311	0.8362	0.6298
320	0.7175	0.4584	0.7191	0.4604
321	-0.0198	-0.0065	-0.0234	-0.0077
322	0.4167	0.1923	0.4167	0.1923
323	-0.0116	-0.0038	-0.0174	-0.0057
324	0.6932	0.4296	0.6955	0.4323
325	0.7619	0.5161	0.7594	0.5127

(7) Table 22 (continued)

PAGE NUMBER 14

RELIABILITY ESTIMATES OF 622 DAL ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
326	0.7967	0.5665	0.7955	0.5645
327	0.7572	0.5097	0.7546	0.5062
328	0.7010	0.4385	0.6983	0.4355
329	0.6533	0.3858	0.6514	0.3838
330	0.6169	0.3493	0.6206	0.3529
331	0.7151	0.4555	0.7189	0.4601
332	0.8725	0.6953	0.8732	0.6966
333	0.3324	0.1423	0.3332	0.1428
334	0.5230	0.2677	0.5421	0.2829
335	0.8494	0.6527	0.8482	0.6506
336	0.5464	0.2865	0.5443	0.2847
337	0.7069	0.4456	0.7084	0.4474
338	0.7461	0.4949	0.7465	0.4955
339	0.8427	0.6410	0.8443	0.6438
340	0.5817	0.3168	0.5854	0.3200
341	-0.0795	-0.0252	-0.0802	-0.0254
342	0.7135	0.4536	0.7105	0.4500
343	0.1755	0.0662	0.1760	0.0665
344	0.5250	0.2693	0.5235	0.2681
345	-0.0597	-0.0191	-0.0626	-0.0200
346	0.9652	0.9024	0.9656	0.9034
347	0.8069	0.5821	0.8052	0.5794
348	0.7852	0.5492	0.7831	0.5462
349	0.3912	0.1704	0.3770	0.1679
350	0.4607	0.2216	0.4545	0.2173

(7) Table 22 (continued)

PAGE NUMBER 15

RELIABILITY ESTIMATES OF622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
351	0.7626	0.5172	0.7609	0.5149
352	0.4634	0.2235	0.4673	0.2262
353	0.7097	0.4490	0.7106	0.4501
354	0.4197	0.1943	0.4192	0.1939
355	0.3386	0.1458	0.3400	0.1466
356	-0.0259	-0.0035	-0.0336	-0.0110
357	0.8993	0.7486	0.8993	0.7486
358	-0.0044	-0.0015	-0.0067	-0.0022
359	0.1562	0.0581	0.1487	0.0550

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
360	99.0000	99.0000	99.0000	0.0000
361	0.7598	0.5133	0.7651	0.5205
362	0.8683	0.6874	0.8747	0.6995
363	0.8862	0.7218	0.8887	0.7268
364	0.7630	0.5177	0.7727	0.5313
365	0.2322	0.1159	0.2932	0.1215
366	0.6963	0.4332	0.7050	0.4433
367	0.7476	0.4968	0.7455	0.4941
368	0.4325	0.2026	0.4497	0.2141
369	0.6744	0.4085	0.6785	0.4129
370	0.8760	0.7019	0.8762	0.7022
371	0.5272	0.2709	0.5428	0.2835
372	0.2292	0.0902	0.2277	0.0895
373	0.9597	0.8881	0.9603	0.8896
374	0.8263	0.6133	0.8248	0.6109
375	0.8482	0.6506	0.8483	0.6509
376	0.8483	0.6508	0.8476	0.6496
377	0.8652	0.6890	0.8679	0.6866
378	0.8046	0.5786	0.8108	0.5883
379	0.6822	0.4171	0.6920	0.4282
380	0.6347	0.3667	0.6462	0.3784
381	-0.0620	-0.0199	-0.0673	-0.0215
382	0.2676	0.1086	0.2653	0.1074
383	0.7574	0.5100	0.7592	0.5124
384	0.7772	0.5376	0.7769	0.5372

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
385	0.8583	0.6687	0.8596	0.6712
386	0.7324	0.4771	0.7320	0.4766
387	0.7903	0.5568	0.7903	0.5568
388	0.5551	0.2937	0.5531	0.2920
389	0.7472	0.4963	0.7470	0.4960
390	0.8280	0.6161	0.8267	0.6140
391	0.6926	0.4289	0.6915	0.4277
392	0.7445	0.4927	0.7495	0.4993
393	0.7867	0.5514	0.7870	0.5519
394	0.7563	0.5085	0.7602	0.5138
395	0.8040	0.5775	0.8032	0.5763
396	0.8394	0.6353	0.8401	0.6366
397	0.6552	0.3878	0.6591	0.3919
398	0.7942	0.5627	0.8018	0.5743
399	0.7701	0.5276	0.7697	0.5270
400	0.7498	0.4997	0.7474	0.4966
401	0.8130	0.5917	0.8120	0.5901
402	0.5007	0.2505	0.4991	0.2494
403	0.4460	0.2116	0.4649	0.2246
404	0.6654	0.3986	0.6751	0.4092
405	0.5976	0.3311	0.5948	0.3286
406	0.8132	0.5920	0.8117	0.5897
407	0.8995	0.7489	0.8992	0.7483
408	0.8247	0.6107	0.8267	0.6138
409	0.6904	0.4264	0.6913	0.4275

(7) Table 22 (continued)

PAGE NUMBER 3

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
410	0.6902	0.4261	0.6888	0.4246
411	0.7549	0.5066	0.7616	0.5156
412	0.5904	0.3245	0.5883	0.3227
413	0.8064	0.5813	0.8053	0.5796
414	0.8651	0.6813	0.8656	0.6822
415	0.8471	0.6487	0.8454	0.6458
416	0.8580	0.6682	0.8575	0.6674
417	0.0358	0.0122	0.0256	0.0087
418	0.7916	0.5587	0.7936	0.5620
419	0.7337	0.4787	0.7329	0.4778
420	0.5238	0.2683	0.5272	0.2710
421	0.3495	0.1519	0.3509	0.1527
422	0.5015	0.2511	0.4969	0.2477
423	0.6033	0.3364	0.5990	0.3324
424	0.4670	0.2261	0.4688	0.2273
425	0.0396	0.0136	0.0427	0.0147
426	0.8336	0.6255	0.8342	0.6265
427	0.7504	0.5005	0.7480	0.4974
428	0.2356	0.0932	0.2313	0.0911
429	0.8561	0.6648	0.8553	0.6633
430	0.7418	0.4892	0.7397	0.4865
431	0.9122	0.7758	0.9117	0.7749
432	99.0000	99.0000	99.0000	0.0000
433	99.0000	99.0000	99.0000	0.0000
434	0.7142	0.4544	0.7166	0.4573

(7) Table 22 (continued)

PAGE NUMBER 4

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
435	0.9296	0.8149	0.9314	0.8191
436	0.9027	0.7556	0.90 4	0.7591
437	0.9156	0.7833	0.9177	0.7880
438	0.6612	0.3942	0.6609	0.3938
439	0.7423	0.4899	0.7555	0.5074
440	0.6316	0.3637	0.6295	0.3616
441	0.5049	0.2537	0.5015	0.2511
442	0.7471	0.4962	0.7525	0.5033
443	0.7896	0.5557	0.7930	0.5608
444	0.7553	0.5071	0.7542	0.5057
445	0.8579	0.6681	0.8569	0.6662
446	0.9241	0.8022	0.9238	0.8016
447	0.8692	0.6889	0.8679	0.6965
448	0.9023	0.7547	0.9022	0.7545
449	0.9121	0.7757	0.9116	0.7747
450	0.7799	0.5415	0.7794	0.5409
451	0.8541	0.6612	0.8545	0.6618
452	0.6309	0.3629	0.6269	0.3590
453	0.5540	0.2928	0.5490	0.2887
454	0.6845	0.4196	0.6868	0.4223
455	0.8024	0.5752	0.8046	0.5785
456	0.5239	0.2683	0.5208	0.2659
457	0.7744	0.5336	0.7725	0.5309
458	0.8521	0.6576	0.8567	0.6658
459	0.4626	0.2230	0.4572	0.2192

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
460	0.6988	0.4361	0.7028	0.4407
461	0.8068	0.5819	0.8096	0.5864
462	0.7753	0.5349	0.7731	0.5318
463	0.7298	0.4738	0.7284	0.4720
464	0.2855	0.1175	0.2876	0.1186
465	0.6186	0.3509	0.6182	0.3506
466	0.5575	0.2957	0.5531	0.2920
467	0.7530	0.5040	0.7553	0.5072
468	0.7267	0.4699	0.7242	0.4668
469	0.6347	0.3667	0.6323	0.3643
470	0.6678	0.4012	0.6644	0.3976
471	0.6118	0.3444	0.6131	0.3456
472	0.7313	0.4757	0.7334	0.4783
473	0.9013	0.7526	0.9019	0.7540
474	0.9052	0.7610	0.9053	0.7610
475	0.9618	0.8935	0.9614	0.8924
476	0.8537	0.6605	0.8538	0.6607
477	0.7520	0.5027	0.7501	0.5001
478	99.0000	99.0000	99.0000	0.0000
479	0.7270	0.4703	0.7270	0.4703
480	0.8593	0.6705	0.8582	0.6686
481	0.7290	0.4728	0.7328	0.4776
482	0.5707	0.3071	0.5689	0.3055
483	0.9005	0.7511	0.8997	0.7495
484	0.6175	0.3499	0.6205	0.3528

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
485	99.0000	99.0000	99.0000	0.0000
486	0.8978	0.7454	0.8969	0.7436
487	0.8879	0.7253	0.8884	0.7263
488	0.3543	0.1546	0.3479	0.1510
489	0.6229	0.3551	0.6206	0.3529
490	0.7679	0.5244	0.7752	0.5348
491	0.8155	0.5957	0.8176	0.5991
492	0.9148	0.7816	0.9155	0.7832
493	0.5963	0.3299	0.5936	0.3320
494	0.8549	0.6627	0.8534	0.6600
495	0.4498	0.2141	0.4492	0.2138
496	0.9162	0.7846	0.9155	0.7830
497	0.9001	0.7501	0.8990	0.7479
498	0.9005	0.7510	0.9022	0.7546
499	0.8843	0.7181	0.8837	0.7169
500	0.5322	0.2750	0.5285	0.2720
501	0.9092	0.7694	0.9089	0.7689
502	0.9313	0.8188	0.9306	0.8173
503	0.9000	0.7499	0.9033	0.7568
504	0.8836	0.7168	0.8856	0.7207
505	0.6235	0.3557	0.6293	0.3614
506	0.8066	0.5817	0.8076	0.5832
507	0.6883	0.4240	0.6871	0.4227
508	0.6957	0.4371	0.6972	0.4342
509	0.7538	0.5051	0.7539	0.5052

(7) Table 22 (continued)

PAGE NUMBER 7

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
510	0.7480	0.4974	0.7522	0.5029
511	0.7357	0.4813	0.7452	0.4936
512	0.7023	0.4402	0.7000	0.4375
513	0.8966	0.7430	0.8965	0.7428
514	0.7770	0.5374	0.7796	0.5410
515	0.8216	0.6056	0.8229	0.6076
516	0.5742	0.3101	0.5700	0.3064
517	0.7602	0.5139	0.7622	0.5165
518	0.6531	0.3855	0.6566	0.3893
519	0.0000	-0.0000	-0.0000	-0.0000
520	0.6036	0.3366	0.6002	0.3335
521	0.7725	0.5310	0.7724	0.5308
522	0.8544	0.6617	0.8531	0.6594
523	0.8777	0.7052	0.8773	0.7044
524	0.9290	0.8136	0.9288	0.8131
525	0.8628	0.6770	0.8639	0.6791
526	0.6665	0.3998	0.6634	0.3965
527	0.8742	0.6985	0.8735	0.6971
528	0.7969	0.5667	0.7983	0.5689
529	0.7438	0.4918	0.7413	0.4886
530	0.6844	0.4195	0.6827	0.4176
531	0.8943	0.7382	0.8958	0.7414
532	0.7729	0.5315	0.7731	0.5318
533	0.8923	0.7342	0.8924	0.7344
534	0.3443	0.1490	0.3380	0.1454

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
535	0.7892	0.5551	0.7874	0.5525
536	0.7988	0.5697	0.7983	0.5688
537	0.8347	0.6273	0.8335	0.6253
538	0.7571	0.5096	0.7557	0.5077
539	0.7900	0.5564	0.7904	0.5569
540	0.5716	0.3079	0.5715	0.3077
541	0.8574	0.6671	0.8558	0.6643
542	0.8199	0.6028	0.8197	0.6025
543	0.6473	0.3796	0.6492	0.3815
544	0.5291	0.2725	0.5244	0.2687
545	0.8549	0.6626	0.8542	0.6614
546	0.9337	0.8245	0.9339	0.8249
547	0.7465	0.4954	0.7556	0.5075
548	0.5621	0.2997	0.5688	0.3054
549	0.6485	0.3807	0.6446	0.3768
550	0.1496	0.0554	0.1419	0.0522
551	0.4095	0.1877	0.4065	0.1859
552	0.7263	0.4693	0.7316	0.4761
553	0.6675	0.4009	0.6719	0.4057
554	0.7497	0.4996	0.7493	0.4990
555	0.8560	0.6645	0.8593	0.6705
556	-0.0116	-0.0038	-0.0174	-0.0057
557	0.8205	0.6037	0.8212	0.6049
558	0.8176	0.5990	0.8181	0.5999
559	0.7520	0.5026	0.7522	0.5029

(7) Table 22 (continued)

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
560	0.8280	0.6161	0.8297	0.6189
561	0.9176	0.7877	0.9169	0.7861
562	0.7816	0.5440	0.7839	0.5474
563	0.7083	0.4473	0.7057	0.4442
564	0.6350	0.3711	0.6426	0.3747
565	0.6991	0.4365	0.6985	0.4357
566	0.8300	0.6194	0.8284	0.6167
567	0.8679	0.6865	0.8670	0.6848
568	0.1094	0.0393	0.1228	0.0446
569	0.9100	0.7712	0.9153	0.7828
570	0.9252	0.8049	0.9258	0.8061
571	0.6903	0.4263	0.6968	0.4335
572	0.5436	0.2842	0.5409	0.2820
573	0.5591	0.2971	0.5620	0.2996
574	0.4338	0.2034	0.4571	0.2191
575	0.6386	0.3707	0.6417	0.3738
576	0.7222	0.4643	0.7313	0.4757
577	0.6228	0.3550	0.6189	0.3512
578	0.7946	0.5633	0.7931	0.5609
579	0.4082	0.1869	0.4019	0.1830
580	0.5770	0.3126	0.5737	0.3097
581	0.2532	0.1015	0.2457	0.0979
582	0.5029	0.2521	0.5031	0.2524
583	0.5688	0.3054	0.5651	0.3022
584	-0.0357	-0.0116	-0.0446	-0.0145

(7) Table 22 (continued)

PAGE NUMBER 10

RELIABILITY_ESTIMATES OF 622OAI_ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
585	0.4857	0.2394	0.4805	0.2357
585	0.1293	0.0472	0.1502	0.0556
587	0.3318	0.1420	0.3417	0.1475
588	0.6301	0.3622	0.6271	0.3592
589	0.3876	0.1742	0.4110	0.1887
590	0.4568	0.2189	0.4709	0.2288
591	0.6158	0.3483	0.6496	0.3819
592	0.6423	0.3744	0.6386	0.3707
593	0.8601	0.6720	0.8589	0.6699
594	0.7369	0.4828	0.7348	0.4802
595	0.7576	0.5102	0.7605	0.5141
596	0.6887	0.4244	0.7072	0.4460
597	0.4422	0.2090	0.4528	0.2162
598	0.4669	0.2260	0.4861	0.2397
599	0.8445	0.6442	0.8430	0.6416
600	0.5788	0.3142	0.5853	0.3200
601	0.2848	0.1172	0.2847	0.1171
602	0.7598	0.5132	0.7668	0.5229
603	0.6670	0.4004	0.6673	0.4007
604	0.6372	0.3692	0.6421	0.3743
605	0.4633	0.2238	0.4631	0.2233
606	0.5181	0.2638	0.5238	0.2683
607	0.6883	0.4240	0.6937	0.4301
608	0.5920	0.3260	0.5915	0.3255
609	0.8374	0.6319	0.8364	0.6303

(7) Table 22 (continued)

PAGE NUMBER 11

RELIABILITY ESTIMATES OF 622 OAI ITEMS

ITEM NUMBER	UNADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS*	UNADJUSTED INTRACLASS CORRELATION COEFFICIENT	ADJUSTED CORRELATION COEFFICIENT FOR 3 RATERS*	ADJUSTED INTRACLASS CORRELATION COEFFICIENT
610	0.8745	0.6991	0.8762	0.7023
611	0.4597	0.2209	0.4654	0.2249
612	0.2982	0.1241	0.2905	0.1201
613	0.7677	0.5241	0.7662	0.5221
614	0.6875	0.4230	0.6847	0.4199
615	0.7748	0.5342	0.7881	0.5536
616	0.5620	0.2996	0.5685	0.3051
617	0.0215	0.0073	0.0185	0.0062
618	0.7210	0.4628	0.7191	0.4604
619	0.7611	0.5150	0.7609	0.5147
620	0.7775	0.5380	0.7803	0.5421
621	0.7525	0.5034	0.7502	0.5003
622	0.7456	0.4942	0.7444	0.4926

*Interclass coefficient.

APPENDIX D

JOBS IN THE TWO SUBSAMPLES USED IN ESTIMATING FACTOR STABILITY

(1) Table 23. Identification Numbers of Jobs in Subsample A*

(2) Table 24. Identification Numbers of Jobs in Subsample B*

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*See appropriate ID numbers in Appendix B for job titles and DOT codes.

D

(1)

Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
A(1)=	4	A(2)=	5	A(3)=	9	A(4)=	14	A(5)=	15
A(6)=	19	A(7)=	20	A(8)=	21	A(9)=	23	A(10)=	24
A(11)=	25	A(12)=	28	A(13)=	30	A(14)=	35	A(15)=	38
A(16)=	39	A(17)=	40	A(18)=	45	A(19)=	47	A(20)=	50
A(21)=	51	A(22)=	52	A(23)=	53	A(24)=	54	A(25)=	55
A(26)=	56	A(27)=	61	A(28)=	63	A(29)=	64	A(30)=	65
A(31)=	68	A(32)=	70	A(33)=	72	A(34)=	77	A(35)=	80
A(36)=	81	A(37)=	87	A(38)=	89	A(39)=	91	A(40)=	94
A(41)=	96	A(42)=	98	A(43)=	100	A(44)=	102	A(45)=	103
A(46)=	106	A(47)=	109	A(48)=	111	A(49)=	112	A(50)=	115
A(51)=	117	A(52)=	119	A(53)=	123	A(54)=	124	A(55)=	125
A(56)=	126	A(57)=	128	A(58)=	132	A(59)=	133	A(60)=	135
A(61)=	138	A(62)=	139	A(63)=	141	A(64)=	144	A(65)=	146
A(66)=	148	A(67)=	149	A(68)=	153	A(69)=	154	A(70)=	156
A(71)=	160	A(72)=	162	A(73)=	165	A(74)=	166	A(75)=	167
A(76)=	170	A(77)=	172	A(78)=	174	A(79)=	175	A(80)=	177
A(81)=	179	A(82)=	181	A(83)=	183	A(84)=	185	A(85)=	187
A(86)=	189	A(87)=	190	A(88)=	192	A(89)=	193	A(90)=	196
A(91)=	197	A(92)=	198	A(93)=	200	A(94)=	203	A(95)=	206
A(96)=	213	A(97)=	214	A(98)=	216	A(99)=	218	A(100)=	220
A(101)=	222	A(102)=	224	A(103)=	225	A(104)=	227	A(105)=	228
A(106)=	230	A(107)=	232	A(108)=	235	A(109)=	236	A(110)=	239
A(111)=	240	A(112)=	241	A(113)=	243	A(114)=	245	A(115)=	246
A(116)=	248	A(117)=	247	A(118)=	251	A(119)=	254	A(120)=	255
A(121)=	256	A(122)=	258	A(123)=	261	A(124)=	262	A(125)=	263
A(126)=	265	A(127)=	268	A(128)=	273	A(129)=	275	A(130)=	278
A(131)=	280	A(132)=	281	A(133)=	282	A(134)=	284	A(135)=	286
A(136)=	289	A(137)=	291	A(138)=	293	A(139)=	295	A(140)=	297
A(141)=	300	A(142)=	302	A(143)=	304	A(144)=	305	A(145)=	307
A(146)=	309	A(147)=	311	A(148)=	313	A(149)=	315	A(150)=	317
A(151)=	318	A(152)=	321	A(153)=	322	A(154)=	323	A(155)=	325
A(156)=	328	A(157)=	330	A(158)=	331	A(159)=	334	A(160)=	336
A(161)=	333	A(162)=	342	A(163)=	344	A(164)=	345	A(165)=	348
A(166)=	349	A(167)=	351	A(168)=	353	A(169)=	355	A(170)=	357
A(171)=	359	A(172)=	363	A(173)=	366	A(174)=	367	A(175)=	369
A(176)=	372	A(177)=	374	A(178)=	375	A(179)=	376	A(180)=	377
A(181)=	378	A(182)=	380	A(183)=	382	A(184)=	385	A(185)=	386
A(186)=	390	A(187)=	393	A(188)=	395	A(189)=	397	A(190)=	401
A(191)=	402	A(192)=	403	A(193)=	404	A(194)=	406	A(195)=	410
A(196)=	413	A(197)=	414	A(198)=	416	A(199)=	418	A(200)=	419
A(201)=	422	A(202)=	424	A(203)=	426	A(204)=	428	A(205)=	430
A(206)=	431	A(207)=	433	A(208)=	438	A(209)=	440	A(210)=	441
A(211)=	444	A(212)=	445	A(213)=	446	A(214)=	448	A(215)=	450
A(216)=	453	A(217)=	455	A(218)=	457	A(219)=	460	A(220)=	466
A(221)=	468	A(222)=	469	A(223)=	471	A(224)=	472	A(225)=	473
A(226)=	479	A(227)=	481	A(228)=	482	A(229)=	484	A(230)=	487
A(231)=	488	A(232)=	489	A(233)=	492	A(234)=	495	A(235)=	497
A(236)=	498	A(237)=	499	A(238)=	501	A(239)=	502	A(240)=	505
A(241)=	506	A(242)=	507	A(243)=	509	A(244)=	510	A(245)=	512
A(246)=	516	A(247)=	517	A(248)=	519	A(249)=	523	A(250)=	528
A(251)=	529	A(252)=	531	A(253)=	532	A(254)=	533	A(255)=	534
A(256)=	538	A(257)=	542	A(258)=	543	A(259)=	545	A(260)=	546
A(261)=	548	A(262)=	549	A(263)=	550	A(264)=	552	A(265)=	556
A(266)=	557	A(267)=	562	A(268)=	563	A(269)=	565	A(270)=	567
A(271)=	571	A(272)=	573	A(273)=	574	A(274)=	577	A(275)=	578
A(276)=	579	A(277)=	581	A(278)=	583	A(279)=	587	A(280)=	590
A(281)=	592	A(282)=	594	A(283)=	595	A(284)=	598	A(285)=	601
A(286)=	603	A(287)=	605	A(288)=	606	A(289)=	607	A(290)=	608
A(291)=	611	A(292)=	613	A(293)=	614	A(294)=	615	A(295)=	616
A(296)=	620	A(297)=	621	A(298)=	624	A(299)=	626	A(300)=	627

D	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
(1)	A(301)=	630	A(302)=	633	A(303)=	635	A(304)=	638	A(305)=	639
	A(306)=	640	A(307)=	643	A(308)=	646	A(309)=	647	A(310)=	648
cont.	A(311)=	649	A(312)=	651	A(313)=	652	A(314)=	654	A(315)=	655
	A(316)=	656	A(317)=	661	A(318)=	663	A(319)=	665	A(320)=	669
	A(321)=	671	A(322)=	672	A(323)=	674	A(324)=	677	A(325)=	679
	A(326)=	682	A(327)=	683	A(328)=	684	A(329)=	686	A(330)=	687
	A(331)=	688	A(332)=	689	A(333)=	690	A(334)=	691	A(335)=	692
	A(336)=	693	A(337)=	695	A(338)=	697	A(339)=	698	A(340)=	703
	A(341)=	704	A(342)=	706	A(343)=	709	A(344)=	710	A(345)=	712
	A(346)=	713	A(347)=	714	A(348)=	717	A(349)=	718	A(350)=	720
	A(351)=	723	A(352)=	724	A(353)=	725	A(354)=	728	A(355)=	729
	A(356)=	731	A(357)=	732	A(358)=	738	A(359)=	742	A(360)=	743
	A(361)=	745	A(362)=	748	A(363)=	750	A(364)=	755	A(365)=	756
	A(366)=	759	A(367)=	761	A(368)=	763	A(369)=	764	A(370)=	765
	A(371)=	767	A(372)=	770	A(373)=	771	A(374)=	772	A(375)=	773
	A(376)=	775	A(377)=	779	A(378)=	780	A(379)=	782	A(380)=	784
	A(381)=	788	A(382)=	790	A(383)=	792	A(384)=	793	A(385)=	794
	A(386)=	795	A(387)=	800	A(388)=	801	A(389)=	803	A(390)=	804
	A(391)=	805	A(392)=	807	A(393)=	811	A(394)=	812	A(395)=	814
	A(396)=	816	A(397)=	820	A(398)=	824	A(399)=	830	A(400)=	831
	A(401)=	832	A(402)=	833	A(403)=	835	A(404)=	836	A(405)=	837
	A(406)=	838	A(407)=	839	A(408)=	840	A(409)=	842	A(410)=	843
	A(411)=	844	A(412)=	845	A(413)=	846	A(414)=	847	A(415)=	850
	A(416)=	851	A(417)=	853	A(418)=	854	A(419)=	856	A(420)=	857
	A(421)=	859	A(422)=	860	A(423)=	863	A(424)=	866	A(425)=	870
	A(426)=	873	A(427)=	875	A(428)=	876	A(429)=	877	A(430)=	880
	A(431)=	882	A(432)=	885	A(433)=	887	A(434)=	888	A(435)=	889
	A(436)=	894	A(437)=	896	A(438)=	897	A(439)=	899	A(440)=	900
	A(441)=	902	A(442)=	903	A(443)=	906	A(444)=	908	A(445)=	910
	A(446)=	911	A(447)=	912	A(448)=	913	A(449)=	915	A(450)=	917
	A(451)=	919	A(452)=	920	A(453)=	922	A(454)=	926	A(455)=	929
	A(456)=	930	A(457)=	933	A(458)=	934	A(459)=	935	A(460)=	936
	A(461)=	939	A(462)=	941	A(463)=	942	A(464)=	945	A(465)=	947
	A(466)=	949	A(467)=	952	A(468)=	955	A(469)=	959	A(470)=	962
	A(471)=	963	A(472)=	965	A(473)=	967	A(474)=	968	A(475)=	970
	A(476)=	971	A(477)=	972	A(478)=	975	A(479)=	981	A(480)=	984
	A(481)=	985	A(482)=	986	A(483)=	987	A(484)=	988	A(485)=	991
	A(486)=	995	A(487)=	996	A(488)=	1000	A(489)=	1001	A(490)=	1004
	A(491)=	1005	A(492)=	1008	A(493)=	1009	A(494)=	1013	A(495)=	1019
	A(496)=	1024	A(497)=	1026	A(498)=	1028	A(499)=	1029	A(500)=	1033
	A(501)=	1035	A(502)=	1036	A(503)=	1037	A(504)=	1039	A(505)=	1041
	A(506)=	1042	A(507)=	1044	A(508)=	1045	A(509)=	1047	A(510)=	1051
	A(511)=	1052	A(512)=	1055	A(513)=	1057	A(514)=	1058	A(515)=	1059
	A(516)=	1060	A(517)=	1063	A(518)=	1068	A(519)=	1069	A(520)=	1071
	A(521)=	1073	A(522)=	1075	A(523)=	1076	A(524)=	1077	A(525)=	1080
	A(526)=	1081	A(527)=	1082	A(528)=	1083	A(529)=	1084	A(530)=	1088
	A(531)=	1089	A(532)=	1091	A(533)=	1093	A(534)=	1094	A(535)=	1095
	A(536)=	1096	A(537)=	1097	A(538)=	1099	A(539)=	1100	A(540)=	1104
	A(541)=	1105	A(542)=	1108	A(543)=	1111	A(544)=	1113	A(545)=	1115
	A(546)=	1116	A(547)=	1120	A(548)=	1123	A(549)=	1125	A(550)=	1128
	A(551)=	1131	A(552)=	1132	A(553)=	1133	A(554)=	1135	A(555)=	1136
	A(556)=	1137	A(557)=	1138	A(558)=	1139	A(559)=	1143	A(560)=	1147
	A(561)=	1150	A(562)=	1151	A(563)=	1152	A(564)=	1155	A(565)=	1156
	A(566)=	1157	A(567)=	1164	A(568)=	1165	A(569)=	1167	A(570)=	1168
	A(571)=	1169	A(572)=	1170	A(573)=	1171	A(574)=	1172	A(575)=	1173
	A(576)=	1174	A(577)=	1176	A(578)=	1177	A(579)=	1180	A(580)=	1181
	A(581)=	1185	A(582)=	1186	A(583)=	1187	A(584)=	1188	A(585)=	1190
	A(586)=	1195	A(587)=	1196	A(588)=	1197	A(589)=	1199	A(590)=	1200
	A(591)=	1202	A(592)=	1203	A(593)=	1204	A(594)=	1206	A(595)=	1207
	A(596)=	1210	A(597)=	1214	A(598)=	1215	A(599)=	1218	A(600)=	1219

D

(1) cont

Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
A(601)=	1221	A(602)=	1223	A(603)=	1224	A(604)=	1227	A(605)=	1228
A(606)=	1230	A(607)=	1231	A(608)=	1232	A(609)=	1233	A(610)=	1237
A(611)=	1239	A(612)=	1242	A(613)=	1243	A(614)=	1244	A(615)=	1247
A(616)=	1250	A(617)=	1251	A(618)=	1252	A(619)=	1253	A(620)=	1254
A(621)=	1255	A(622)=	1260	A(623)=	1262	A(624)=	1263	A(625)=	1264
A(626)=	1266	A(627)=	1270	A(628)=	1271	A(629)=	1272	A(630)=	1273
A(631)=	1276	A(632)=	1279	A(633)=	1280	A(634)=	1282	A(635)=	1286.
A(636)=	1287	A(637)=	1289	A(638)=	1290	A(639)=	1291	A(640)=	1293
A(641)=	1294	A(642)=	1298	A(643)=	1299	A(644)=	1300	A(645)=	1302
A(646)=	1307	A(647)=	1308	A(648)=	1309	A(649)=	1310	A(650)=	1311
A(651)=	1312	A(652)=	1313	A(653)=	1314	A(654)=	1315	A(655)=	1316
A(656)=	1317	A(657)=	1318	A(658)=	1321	A(659)=	1325	A(660)=	1326
A(661)=	1327	A(662)=	1328	A(663)=	1329	A(664)=	1336	A(665)=	1341
A(666)=	1343	A(667)=	1345	A(668)=	1350	A(669)=	1351	A(670)=	1352
A(671)=	1355	A(672)=	1356	A(673)=	1357	A(674)=	1359	A(675)=	1361
A(676)=	1362	A(677)=	1363	A(678)=	1364	A(679)=	1365	A(680)=	1367
A(681)=	1370	A(682)=	1372	A(683)=	1373	A(684)=	1374	A(685)=	1376
A(686)=	1378	A(687)=	1380	A(688)=	1381	A(689)=	1383	A(690)=	1384
A(691)=	1385	A(692)=	1387	A(693)=	1396	A(694)=	1397	A(695)=	1400
A(696)=	1403	A(697)=	1404	A(698)=	1409	A(699)=	1411	A(700)=	1412
A(701)=	1414	A(702)=	1416	A(703)=	1417	A(704)=	1418	A(705)=	1419
A(706)=	1420	A(707)=	1421						

Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
		B(1)=	1	B(2)=	2	B(3)=	3	B(4)=	6
B(5)=	7	B(6)=	8	B(7)=	10	B(8)=	11	B(9)=	12
B(10)=	13	B(11)=	16	B(12)=	17	B(13)=	18	B(14)=	22
B(15)=	26	B(16)=	27	B(17)=	29	B(18)=	31	B(19)=	32
B(20)=	33	B(21)=	34	B(22)=	36	B(23)=	37	B(24)=	41
B(25)=	42	B(26)=	43	B(27)=	44	B(28)=	46	B(29)=	48
B(30)=	49	B(31)=	57	B(32)=	58	B(33)=	59	B(34)=	60
B(35)=	62	B(36)=	66	B(37)=	67	B(38)=	69	B(39)=	71
B(40)=	73	B(41)=	74	B(42)=	75	B(43)=	76	B(44)=	78
B(45)=	79	B(46)=	82	B(47)=	83	B(48)=	84	B(49)=	85
B(50)=	86	B(51)=	88	B(52)=	90	B(53)=	92	B(54)=	93
B(55)=	95	B(56)=	97	B(57)=	99	B(58)=	101	B(59)=	104
B(60)=	105	B(61)=	107	B(62)=	108	B(63)=	110	B(64)=	112
B(65)=	114	B(66)=	116	B(67)=	118	B(68)=	120	B(69)=	121
B(70)=	122	B(71)=	127	B(72)=	129	B(73)=	130	B(74)=	131
B(75)=	134	B(76)=	136	B(77)=	137	B(78)=	140	B(79)=	142
B(80)=	143	B(81)=	145	B(82)=	147	B(83)=	150	B(84)=	151
B(85)=	152	B(86)=	155	B(87)=	157	B(88)=	158	B(89)=	159
B(90)=	161	B(91)=	163	B(92)=	164	B(93)=	168	B(94)=	169
B(95)=	171	B(96)=	173	B(97)=	176	B(98)=	178	B(99)=	180
B(100)=	182	B(101)=	184	B(102)=	186	B(103)=	188	B(104)=	191
B(105)=	194	B(106)=	195	B(107)=	199	B(108)=	201	B(109)=	202
B(110)=	204	B(111)=	205	B(112)=	207	B(113)=	208	B(114)=	209
B(115)=	210	B(116)=	211	B(117)=	212	B(118)=	215	B(119)=	217
B(120)=	219	B(121)=	221	B(122)=	223	B(123)=	226	B(124)=	229
B(125)=	231	B(126)=	233	B(127)=	234	B(128)=	237	B(129)=	238
B(130)=	242	B(131)=	244	B(132)=	247	B(133)=	250	B(134)=	252
B(135)=	253	B(136)=	257	B(137)=	259	B(138)=	260	B(139)=	264
B(140)=	266	B(141)=	267	B(142)=	269	B(143)=	270	B(144)=	271
B(145)=	272	B(146)=	274	B(147)=	276	B(148)=	277	B(149)=	279
B(150)=	283	B(151)=	285	B(152)=	287	B(153)=	288	B(154)=	290
B(155)=	292	B(156)=	294	B(157)=	296	B(158)=	298	B(159)=	299
B(160)=	301	B(161)=	303	B(162)=	306	B(163)=	308	B(164)=	310
B(165)=	312	B(166)=	314	B(167)=	316	B(168)=	319	B(169)=	320
B(170)=	324	B(171)=	326	B(172)=	327	B(173)=	329	B(174)=	332
B(175)=	333	B(176)=	335	B(177)=	337	B(178)=	339	B(179)=	340
B(180)=	341	B(181)=	343	B(182)=	346	B(183)=	347	B(184)=	350
B(185)=	352	B(186)=	354	B(187)=	356	B(188)=	358	B(189)=	360
B(190)=	361	B(191)=	362	B(192)=	364	B(193)=	365	B(194)=	368
B(195)=	370	B(196)=	371	B(197)=	373	B(198)=	379	B(199)=	381

Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
B(200)=	383	B(201)=	384	B(202)=	387	B(203)=	388	B(204)=	389
B(205)=	391	B(206)=	392	B(207)=	394	B(208)=	396	B(209)=	398
B(210)=	399	B(211)=	400	B(212)=	405	B(213)=	407	B(214)=	408
B(215)=	409	B(216)=	411	B(217)=	412	B(218)=	415	B(219)=	417
B(220)=	420	B(221)=	421	B(222)=	423	B(223)=	425	B(224)=	427
B(225)=	429	B(226)=	432	B(227)=	434	B(228)=	435	B(229)=	436
B(230)=	437	B(231)=	439	B(232)=	442	B(233)=	443	B(234)=	447
B(235)=	449	B(236)=	451	B(237)=	452	B(238)=	454	B(239)=	456
B(240)=	458	B(241)=	459	B(242)=	461	B(243)=	462	B(244)=	463
B(245)=	464	B(246)=	465	B(247)=	467	B(248)=	470	B(249)=	474
B(250)=	475	B(251)=	476	B(252)=	477	B(253)=	478	B(254)=	480
B(255)=	483	B(256)=	485	B(257)=	486	B(258)=	490	B(259)=	491
B(260)=	493	B(261)=	494	B(262)=	496	B(263)=	500	B(264)=	503
B(265)=	504	B(266)=	508	B(267)=	511	B(268)=	513	B(269)=	514
B(270)=	515	B(271)=	518	B(272)=	520	B(273)=	521	B(274)=	522
B(275)=	524	B(276)=	525	B(277)=	526	B(278)=	527	B(279)=	529
B(280)=	535	B(281)=	536	B(282)=	537	B(283)=	539	B(284)=	540
B(285)=	541	B(286)=	544	B(287)=	547	B(288)=	551	B(289)=	553
B(290)=	554	B(291)=	555	B(292)=	558	B(293)=	559	B(294)=	560
B(295)=	561	B(296)=	564	B(297)=	566	B(298)=	568	B(299)=	569
B(300)=	570	B(301)=	572	B(302)=	575	B(303)=	576	B(304)=	580
B(305)=	582	B(306)=	584	B(307)=	585	B(308)=	586	B(309)=	588
B(310)=	589	B(311)=	591	B(312)=	593	B(313)=	596	B(314)=	597
B(315)=	599	B(316)=	600	B(317)=	602	B(318)=	604	B(319)=	609
B(320)=	610	B(321)=	612	B(322)=	617	B(323)=	618	B(324)=	619
B(325)=	622	B(326)=	623	B(327)=	625	B(328)=	628	B(329)=	629
B(330)=	631	B(331)=	632	B(332)=	634	B(333)=	636	B(334)=	637
B(335)=	641	B(336)=	642	B(337)=	644	B(338)=	645	B(339)=	650
B(340)=	653	B(341)=	657	B(342)=	658	B(343)=	659	B(344)=	660
B(345)=	662	B(346)=	664	B(347)=	666	B(348)=	667	B(349)=	668
B(350)=	670	B(351)=	673	B(352)=	675	B(353)=	676	B(354)=	678
B(355)=	680	B(356)=	681	B(357)=	685	B(358)=	694	B(359)=	695
B(360)=	699	B(361)=	700	B(362)=	701	B(363)=	702	B(364)=	705
B(365)=	707	B(366)=	708	B(367)=	711	B(368)=	715	B(369)=	716
B(370)=	719	B(371)=	721	B(372)=	722	B(373)=	726	B(374)=	727
B(375)=	730	B(376)=	733	B(377)=	735	B(378)=	740	B(379)=	741
B(380)=	744	B(381)=	747	B(382)=	749	B(383)=	751	B(384)=	752
B(385)=	753	B(386)=	754	B(387)=	757	B(388)=	758	B(389)=	762
B(390)=	766	B(391)=	768	B(392)=	769	B(393)=	774	B(394)=	776
B(395)=	777	B(396)=	778	B(397)=	781	B(398)=	783	B(399)=	785
B(400)=	786	B(401)=	787	B(402)=	789	B(403)=	791	B(404)=	796
B(405)=	797	B(406)=	798	B(407)=	799	B(408)=	802	B(409)=	806
B(410)=	808	B(411)=	809	B(412)=	810	B(413)=	813	B(414)=	815
B(415)=	817	B(416)=	821	B(417)=	822	B(418)=	823	B(419)=	825
B(420)=	826	B(421)=	827	B(422)=	828	B(423)=	829	B(424)=	834
B(425)=	841	B(426)=	848	B(427)=	849	B(428)=	852	B(429)=	855
B(430)=	858	B(431)=	861	B(432)=	862	B(433)=	864	B(434)=	865
B(435)=	867	B(436)=	868	B(437)=	869	B(438)=	871	B(439)=	872
B(440)=	874	B(441)=	878	B(442)=	879	B(443)=	881	B(444)=	883
B(445)=	884	B(446)=	886	B(447)=	890	B(448)=	891	B(449)=	892
B(450)=	893	B(451)=	895	B(452)=	898	B(453)=	901	B(454)=	904
B(455)=	905	B(456)=	907	B(457)=	909	B(458)=	914	B(459)=	916
B(460)=	918	B(461)=	921	B(462)=	923	B(463)=	924	B(464)=	925-
B(465)=	927	B(466)=	928	B(467)=	931	B(468)=	932	B(469)=	937
B(470)=	938	B(471)=	940	B(472)=	943	B(473)=	944	B(474)=	946
B(475)=	948	B(476)=	950	B(477)=	951	B(478)=	953	B(479)=	954
B(480)=	956	B(481)=	957	B(482)=	958	B(483)=	960	B(484)=	961
B(485)=	964	B(486)=	966	B(487)=	969	B(488)=	973	B(489)=	974
B(490)=	976	B(491)=	977	B(492)=	978	B(493)=	979	B(494)=	980
B(495)=	982	B(496)=	983	B(497)=	989	B(498)=	990	B(499)=	992

Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID	Sample No.	ID
B(500)=	993	B(501)=	994	B(502)=	997	B(503)=	998	B(504)=	999
B(505)=	1002	B(506)=	1003	B(507)=	1006	B(508)=	1007	B(509)=	1010
B(510)=	1011	B(511)=	1012	B(512)=	1014	B(513)=	1015	B(514)=	1016
B(515)=	1017	B(516)=	1018	B(517)=	1020	B(518)=	1021	B(519)=	1022
B(520)=	1023	B(521)=	1025	B(522)=	1027	B(523)=	1030	B(524)=	1031
B(525)=	1032	B(526)=	1034	B(527)=	1038	B(528)=	1040	B(529)=	1043
B(530)=	1046	B(531)=	1048	B(532)=	1049	B(533)=	1050	B(534)=	1053
B(535)=	1054	B(536)=	1056	B(537)=	1061	B(538)=	1062	B(539)=	1064
B(540)=	1065	B(541)=	1066	B(542)=	1067	B(543)=	1070	B(544)=	1072
B(545)=	1074	B(546)=	1078	B(547)=	1079	B(548)=	1085	B(549)=	1086
B(550)=	1087	B(551)=	1090	B(552)=	1092	B(553)=	1099	B(554)=	1101
B(555)=	1102	B(556)=	1103	B(557)=	1106	B(558)=	1107	B(559)=	1109
B(560)=	1110	B(561)=	1112	B(562)=	1114	B(563)=	1117	B(564)=	1118
B(565)=	1119	B(566)=	1121	B(567)=	1122	B(568)=	1124	B(569)=	1126
B(570)=	1127	B(571)=	1129	B(572)=	1130	B(573)=	1134	B(574)=	1140
B(575)=	1141	B(576)=	1142	B(577)=	1144	B(578)=	1145	B(579)=	1146
B(580)=	1148	B(581)=	1149	B(582)=	1153	B(583)=	1154	B(584)=	1158
B(585)=	1159	B(586)=	1160	B(587)=	1161	B(588)=	1162	B(589)=	1163
B(590)=	1166	B(591)=	1175	B(592)=	1178	B(593)=	1179	B(594)=	1152
B(595)=	1183	B(596)=	1184	B(597)=	1139	B(598)=	1191	B(599)=	1192
B(600)=	1193	B(601)=	1194	B(602)=	1198	B(603)=	1201	B(604)=	1205
B(605)=	1208	B(606)=	1209	B(607)=	1211	B(608)=	1212	B(609)=	1213
B(610)=	1216	B(611)=	1217	B(612)=	1220	B(613)=	1222	B(614)=	1225
B(615)=	1226	B(616)=	1229	B(617)=	1234	B(618)=	1235	B(619)=	1236
B(620)=	1238	B(621)=	1240	B(622)=	1241	B(623)=	1245	B(624)=	1246
B(625)=	1248	B(626)=	1249	B(627)=	1256	B(628)=	1257	B(629)=	1258
B(630)=	1259	B(631)=	1262	B(632)=	1265	B(633)=	1267	B(634)=	1268
B(635)=	1269	B(636)=	1275	B(637)=	1276	B(638)=	1277	B(639)=	1278
B(640)=	1281	B(641)=	1283	B(642)=	1284	B(643)=	1285	B(644)=	1289
B(645)=	1292	B(646)=	1295	B(647)=	1296	B(648)=	1297	B(649)=	1301
B(650)=	1303	B(651)=	1304	B(652)=	1305	B(653)=	1206	B(654)=	1319
B(655)=	1320	B(656)=	1322	B(657)=	1323	B(658)=	1324	B(659)=	1320
B(660)=	1331	B(661)=	1332	B(662)=	1333	B(663)=	1334	B(664)=	1335
B(665)=	1337	B(666)=	1338	B(667)=	1339	B(668)=	1340	B(669)=	1342
B(670)=	1344	B(671)=	1346	B(672)=	1347	B(673)=	1348	B(674)=	1349
B(675)=	1353	B(676)=	1354	B(677)=	1359	B(678)=	1360	B(679)=	1366
B(680)=	1368	B(681)=	1369	B(682)=	1371	B(683)=	1375	B(684)=	1377
B(685)=	1379	B(686)=	1382	B(687)=	1386	B(688)=	1388	B(689)=	1389
B(690)=	1390	B(691)=	1391	B(692)=	1392	B(693)=	1393	B(694)=	1394
B(695)=	1395	B(696)=	1398	B(697)=	1399	B(698)=	1401	B(699)=	1402
B(700)=	1405	B(701)=	1406	B(702)=	1407	B(703)=	1408	B(704)=	1410
B(705)=	1413	B(706)=	1415	B(707)=	1422				

APPENDIX E

MEANS AND STANDARD DEVIATIONS FOR 602 OAI ITEMS (WORK ELEMENTS) BASED ON THE OAI RATINGS OF 1414 JOBS

(1) Table 25. Conversion of the Variable Numbers in the Eight Sectional Factor Analyses to the Appropriate OAI Work Element (Item) Numbers

(2) Table 26. Means and Standard Deviations for 115 OAI Information Received Items Based on the OAI Ratings of 1414 Jobs

(3) Table 27. Means and Standard Deviations for 38 OAI Mental Activities Items Based on the OAI Ratings of 1414 Jobs

(4) Table 28. Means and Standard Deviations for 167 OAI Physical Work Behavior Items Based on the OAI Ratings of 1414 Jobs

(5) Table 29. Means and Standard Deviations for 22 OAI General Physical Requirements Items Based on the OAI Ratings of 1414 Jobs

(6) Table 30. Means and Standard Deviations for 39 OAI Representational Work Behavior Items Based on the OAI Ratings of 1414 Jobs

(7) Table 31. Means and Standard Deviations for 32 OAI Interpersonal Work Behavior Items Based on the OAI Ratings of 1414 Jobs

(8) Table 32. Means and Standard Deviations for 112 OAI Work Goals Items Based on the OAI Ratings of 1414 Jobs

(9) Table 33. Means and Standard Deviations for 77 OAI Work Context Items Based on the OAI Ratings of 1414 Jobs

(1)

Table 25. Conversion of the Variable Numbers in the Eight Sectional Factor Analyses to the Appropriate OAI Work Element (Item) Numbers

Variable Number		OAI Number	Variable Number		OAI Number
Information Received[a]			Information Received (cont'd.)		
1	=	1i	39	=	39i
2	=	2i	40	=	40i
3	=	3i	41	=	41i
4	=	4i	42	=	42i
5	=	5i	43	=	43i
6	=	6i	44	=	44i
7	=	7i	45	=	45i
8	=	8i	46	=	46i
9	=	9i	47	=	47i
10	=	10i	48	=	48i
11	=	11i	49	=	49i
12	=	12i	50	=	50i
13	=	13i	51	=	51i
14	=	14i	52	=	52i
15	=	15i	53	=	53i
16	=	16i	54	=	54i
17	=	17i	55	=	55i
18	=	18i	56	=	56i
19	=	19i	57	=	57i
20	=	20i	58	=	58i
21	=	21i	59	=	59i
22	=	22i	60	=	60i
23	=	23i	61	=	61i
24	=	24i	62	=	62i
25	=	25i	63	=	63i
26	=	26i	64	=	64i
27	=	27i	65	=	65i
28	=	28i	66	=	66i
29	=	29i	67	=	67i
30	=	30i	68	=	68i
31	=	31i	69	=	69i
32	=	32i	70	=	70i
33	=	33i	71	=	71i
34	=	34i	72	=	72i
35	=	35i	73	=	73i
36	=	36i	74	=	74i
37	=	37i	75	=	75i
38	=	38i	76	=	76i

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
Information Received (cont'd.)			Mental Activities[b]		
77	=	77i	1	=	1^m
78	=	78i	2	=	2^m
79	=	79i	3	=	3^m
80	=	80i	4	=	4^m
81	=	81i	5	=	5^m
82	=	82i	6	=	6^m
83	=	83i	7	=	7^m
84	=	84i	8	=	8^m
85	=	85i	9	=	9^m
86	=	86i	10	=	10^m
87	=	87i	11	=	11^m
88	=	88i	12	=	12^m
89	=	89i	13	=	13^m
90	=	90i	14	=	14^m
91	=	91i	15	=	15^m
92	=	92i	16	=	16^m
93	=	93i	17	=	17^m
94	=	94i	18	=	18^m
95	=	95i	19	=	19^m
96	=	96i	20	=	20^m
97	=	97i	21	=	21^m
98	=	98i	22	=	22^m
99	=	99i	23	=	23^m
100	=	100i	24	=	24^m
101	=	101i	25	=	25^m
102	=	102i	26	=	26^m
103	=	103i	27	=	27^m
104	=	104i	28	=	28^m
105	=	105i	29	=	29^m
106	=	106i	30	=	30^m
107	=	107i	31	=	31^m
108	=	108i	32	=	32^m
109	=	109i	33	=	33^m
110	=	110i	34	=	34^m
111	=	111i	35	=	35^m
112	=	112i	36	=	36^m
113	=	113i	37	=	37^m
114	=	114i	38	=	38^m
115	=	115i			

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
Physical Work Behavior[c]			Physical Work Behavior (cont'd.)		
1	=	1t	44	=	47t
2	=	2t	45	=	48t
3	=	3t	46	=	49t
4	=	4t	47	=	50t
5	=	5t	48	=	51t
6	=	6t	49	=	52t
7	=	7t	50	=	53t
8	=	8t	51	=	54t
9	=	9t	52	=	55t
10	=	10t	53	=	56t
11	=	11t	54	=	57t
12	=	12t	55	=	58t
13	=	13t	56	=	59t
14	=	14t	57	=	60t
15	=	15t	58	=	61t
16	=	16t	59	=	62t
17	=	17t	60	=	63t
18	=	18t	61	=	64t
19	=	20t	62	=	65t
20	=	21t	63	=	67t
21	=	22t	64	=	68t
22	=	23t	65	=	69t
23	=	24t	66	=	70t
24	=	25t	67	=	71t
25	=	26t	68	=	72t
26	=	27t	69	=	73t
27	=	28t	70	=	74t
28	=	29t	71	=	75t
29	=	30t	72	=	76t
30	=	31t	73	=	77t
31	=	32t	74	=	78t
32	=	33t	75	=	79t
33	=	34t	76	=	80t
34	=	35t	77	=	81t
35	=	36t	78	=	82t
36	=	37t	79	=	83t
37	=	38t	80	=	84t
38	=	39t	81	=	85t
39	=	41t	82	=	86t
40	=	42t	83	=	87t
41	=	43t	84	=	88t
42	=	44t	85	=	89t
43	=	45t	86	=	90t

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
Physical Work Behavior (cont'd.)			Physical Work Behavior (cont'd.)		
87	=	91t	129	=	6j
88	=	92t	130	=	7j
89	=	93t	131	=	8j
90	=	94t	132	=	9j
91	=	23a	133	=	10j
92	=	24a	134	=	11j
93	=	25a	135	=	12j
94	=	26a	136	=	13j
95	=	27a	137	=	14j
96	=	28a	138	=	15j
97	=	29a	139	=	16j
98	=	30a	140	=	17j
99	=	31a	141	=	18j
100	=	32a	142	=	19j
101	=	33a	143	=	20j
102	=	34a	144	=	21j
103	=	35a	145	=	22j
104	=	36a	146	=	23j
105	=	37a	147	=	24j
106	=	38a	148	=	25j
107	=	39a	149	=	26j
108	=	40a	150	=	27j
109	=	41a	151	=	28j
110	=	42a	152	=	29j
111	=	43a	153	=	30j
112	=	44a	154	=	31j
113	=	45a	155	=	32j
114	=	46a	156	=	33j
115	=	47a	157	=	34j
116	=	48a	158	=	35j
117	=	49a	159	=	36j
118	=	50a	160	=	37j
119	=	51a	161	=	38j
120	=	52a	162	=	39j
121	=	53a	163	=	40j
122	=	54a	164	=	41j
123	=	55a	165	=	42j
124	=	1j	166	=	43j
125	=	2j	167	=	44j
126	=	3j			
127	=	4j			
128	=	5j			

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
General Physical Requirements			Representational Work Behavior (cont'd.)		
1	=	1a	19	=	19r
2	=	2a	20	=	20r
3	=	3a	21	=	21r
4	=	4a	22	=	22r
5	=	5a	23	=	23r
6	=	6a	24	=	24r
7	=	7a	25	=	25r
8	=	8a	26	=	26r
9	=	9a	27	=	27r
10	=	10a	28	=	28r
11	=	11a	29	=	29r
12	=	12a	30	=	30r
13	=	13a	31	=	31r
14	=	14a	32	=	32r
15	=	15a	33	=	33r
16	=	16a	34	=	34r
17	=	17a	35	=	35r
18	=	18a	36	=	36r
19	=	19a	37	=	37r
20	=	20a	38	=	38r
21	=	21a	39	=	39r
22	=	22a			
Representational Work Behavior			Interpersonal Work Behavior[d]		
1	=	1r	1	=	1p
2	=	2r	2	=	2p
3	=	3r	3	=	3p
4	=	4r	4	=	4p
5	=	5r	5	=	5p
6	=	6r	6	=	6p
7	=	7r	7	=	7p
8	=	8r	8	=	8p
9	=	9r	9	=	9p
10	=	10r	10	=	10p
11	=	11r	11	=	11p
12	=	12r	12	=	12p
13	=	13r	13	=	13p
14	=	14r	14	=	14p
15	=	15r	15	=	15p
16	=	16r	16	=	16p
17	=	17r	17	=	17p
18	=	18r	18	=	18p

Table 25 (continued)

Variable Number		OAI Number
Interpersonal Work Behavior (cont'd.)		
19	=	19p
20	=	20p
21	=	21p
22	=	22p
23	=	23p
24	=	24p
25	=	25p
26	=	26p
27	=	27p
28	=	28p
29	=	29p
30	=	30p
31	=	31p
32	=	32p
Work Goals		
1	=	1g
2	=	2g
3	=	3g
4	=	4g
5	=	5g
6	=	6g
7	=	7g
8	=	8g
9	=	9g
10	=	10g
11	=	11g
12	=	12g
13	=	13g
14	=	14g
15	=	15g
16	=	16g
17	=	17g
18	=	18g
19	=	19g
20	=	20g
21	=	21g
22	=	22g
23	=	23g
24	=	24g
25	=	25g
26	=	26g
Work Goals (cont'd.)		
27	=	27g
28	=	28g
29	=	29g
30	=	30g
31	=	31g
32	=	32g
33	=	33g
34	=	34g
35	=	35g
36	=	36g
37	=	37g
38	=	38g
39	=	39g
40	=	40g
41	=	41g
42	=	42g
43	=	43g
44	=	44g
45	=	45g
46	=	46g
47	=	47g
48	=	48g
49	=	49g
50	=	50g
51	=	51g
52	=	52g
53	=	53g
54	=	54g
55	=	55g
56	=	56g
57	=	57g
58	=	58g
59	=	59g
60	=	60g
61	=	61g
62	=	62g
63	=	63g
64	=	64g
65	=	65g
66	=	66g
67	=	67g
68	=	68g

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
Work Goals (cont'd.)			**Work Context**		
69	=	69g	1	=	1c
70	=	70g	2	=	2c
71	=	71g	3	=	3c
72	=	72g	4	=	4c
73	=	73g	5	=	5c
74	=	74g	6	=	6c
75	=	75g	7	=	7c
76	=	76g	8	=	8c
77	=	77g	9	=	9c
78	=	78g	10	=	10c
79	=	79g	11	=	11c
80	=	80g	12	=	12c
81	=	81g	13	=	13c
82	=	82g	14	=	14c
83	=	83g	15	=	15c
84	=	84g	16	=	16c
85	=	85g	17	=	17c
86	=	86g	18	=	18c
87	=	87g	19	=	19c
88	=	88g	20	=	20c
89	=	89g	21	=	21c
90	=	90g	22	=	22c
91	=	91g	23	=	23c
92	=	92g	24	=	24c
93	=	93g	25	=	25c
94	=	94g	26	=	26c
95	=	95g	27	=	27c
96	=	96g	28	=	28c
97	=	97g	29	=	29c
98	=	98g	30	=	30c
99	=	99g	31	=	31c
100	=	100g	32	=	32c
101	=	101g	33	=	33c
102	=	102g	34	=	34c
103	=	103g	35	=	35c
104	=	104g	36	=	36c
105	=	105g	37	=	37c
106	=	106g	38	=	38c
107	=	107g	39	=	39c
108	=	108g	40	=	40c
109	=	109g	41	=	41c
110	=	110g	42	=	42c
111	=	111g	43	=	43c
112	=	112g			

Table 25 (continued)

Variable Number		OAI Number	Variable Number		OAI Number
Work Context (cont'd.)			Work Context (cont'd.)		
44	=	44c	61	=	61c
45	=	45c	62	=	62c
46	=	46c	63	=	63c
47	=	47c	64	=	64c
48	=	48c	65	=	65c
49	=	49c	66	=	66c
50	=	50c	67	=	67c
51	=	51c	68	=	68c
52	=	52c	69	=	69c
53	=	53c	70	=	70c
54	=	54c	71	=	71c
55	=	55c	72	=	72c
56	=	56c	73	=	73c
57	=	57c	74	=	74c
58	=	58c	75	=	75c
59	=	59c	76	=	76c
60	=	60c	77	=	77c

NOTE: The OAI items represented in this table are appended to the following Ergometric report: Cunningham, J. W., Tuttle, T. C., Floyd, J. R., and Bates, J. A. The development of the Occupation Analysis Inventory: an "ergometric" approach to an educational problem. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 144 (180 pp.).

[a] OAI items 116i-125i (Sensing items) were omitted from the Information Received analysis.

[b] OAI items 39m-41m (Educational and Experiential Requirements items) were omitted from the Mental Activities analysis.

[c] The following OAI write-in items were omitted from the Physical Work Behavior analysis: 19t, 40t, 46t, 66t, and 95t.

[d] Items 33p and 34p were recently added to the OAI and were not included in the Interpersonal Work Behavior analysis.

(2)

Table 26 . Means and Standard Deviations for 115 OAI Information Received Items Based on the OAI Ratings of 1414 Jobs

Variable	Mean	S.D.
1	0.780745	1.326918
2	0.838669	1.440747
3	0.528269	1.083517
4	0.519585	1.123505
5	0.800547	1.361072
6	0.423602	1.048404
7	0.670419	1.302798
8	0.310448	0.967467
9	0.465327	1.079187
10	0.313984	0.942972
11	0.342273	0.937606
12	0.164761	0.731707
13	0.389656	1.059479
14	0.246800	0.800284
15	0.297718	0.968549
16	0.275794	0.871138
17	0.432039	1.050343
18	0.270144	0.905721
19	0.220632	0.807361
20	0.340152	0.970640
21	0.239727	0.872474
22	0.268015	0.957625
23	0.177492	0.729687
24	0.786362	1.446700
25	0.478735	1.139531
26	0.674663	1.357059
27	0.540292	1.141468
28	0.503275	1.230432
29	0.316813	0.948768
30	0.441990	1.124442
31	0.335413	1.038125
32	0.183100	0.775526
33	0.316626	1.517936
34	1.014539	1.629243
35	0.392484	0.995044
36	0.253164	0.925857
37	0.203659	0.715412
38	0.333899	0.952344
39	0.282666	0.863657
40	0.189515	0.706398
41	0.104650	0.536325
42	0.177491	0.717943
43	0.214267	0.776496
44	0.198708	0.759470
45	0.152739	0.703231
46	0.548778	1.233516
47	0.245627	0.824584
48	0.398142	0.934778
49	0.379542	1.008202
50	0.159105	0.796803
51	0.127260	0.681884
52	0.123037	0.646462
53	0.170420	0.777346
54	0.017679	0.213739
55	0.127279	0.593074
56	0.086267	0.499707
57	0.130109	0.650538
58	0.116671	0.664365
59	0.103942	0.559073
60	0.103945	0.567871
61	0.277916	0.900447
62	0.208609	0.805737
63	0.194465	0.751234
64	0.030409	0.342430
65	0.029702	0.306508
66	0.155568	0.731307
67	0.018286	0.259990
68	0.050918	0.374644
69	0.143546	0.651511
70	0.170420	0.766344
71	0.140011	0.672052
72	0.116672	0.582633
73	0.134352	0.682585
74	0.218510	0.836778
75	0.080611	0.508101
76	0.133645	0.709679
77	0.125158	0.624964
78	0.202245	0.814777
79	1.923305	1.537671
80	0.714266	1.256955
81	0.454012	1.062251
82	0.454718	1.042099
83	0.681026	1.252036
84	1.579595	1.283692
85	1.257855	1.140312
86	2.105051	1.504725
87	0.873386	1.350785
88	1.559105	1.656782
89	0.715387	1.370274
90	0.431391	1.080195
91	1.629821	1.661581
92	0.744676	1.267117
93	0.607599	1.326509
94	0.635059	1.450183
95	0.332371	0.973702
96	1.076931	1.750192
97	1.122940	1.514786
98	0.368439	0.956028
99	0.724872	1.296144
100	0.469457	1.066040
101	0.206488	0.759746
102	0.198061	0.730722
103	0.060107	0.431354
104	0.307617	0.911922
105	0.043640	0.358176
106	0.351466	0.986887
107	0.565045	1.182376
108	0.125158	0.591728
109	0.179613	0.687715
110	0.127262	0.573680
111	0.352173	0.965245
112	0.505638	1.147733
113	0.330250	0.910210
114	0.183150	0.710590
115	0.217056	0.718902

(3)

Table 27. Means and Standard Deviations for 38 OAI Mental Activities Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	0.758820	1.175539
2	0.854294	1.326373
3	0.883597	1.295872
4	1.339865	1.542304
5	0.672541	1.201627
6	1.642541	1.452922
7	1.159528	1.425592
8	0.586260	1.183407
9	1.812989	1.527992
10	0.399556	1.017579
11	0.584136	1.062562
12	0.815293	1.346710
13	0.212145	0.739280
14	1.469980	1.393046
15	1.714670	1.437393
16	0.484421	1.173851
17	0.517661	1.140804
18	0.426430	0.965700
19	0.184564	0.718131
20	1.414109	1.575900
21	0.588382	1.186232
22	2.025842	1.446856
23	1.482022	1.574078
24	1.359010	1.536394
25	1.214745	1.336651
26	1.492599	1.381120
27	1.250793	1.412150
28	0.772256	1.237684
29	2.013116	1.634433
30	0.425016	0.947840
31	0.659810	1.142763
32	0.795593	1.288465
33	0.702950	1.187671
34	1.162434	1.549480
35	0.229826	0.692810
36	0.684560	1.172090
37	0.894604	1.393835
38	0.642836	1.241098

(4)

Table 28. Means and Standard Deviations for 167 OAI Physical Work Behavior Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	0.117379	0.522345
2	0.295596	0.870327
3	0.277209	0.901833
4	0.074946	0.443566
5	0.168299	0.706761
6	0.496445	1.111392
7	0.151326	0.660003
8	0.202952	0.739456
9	0.071411	0.428751
10	0.069798	0.471050
11	0.053030	0.404340
12	0.110306	0.533845
13	0.078483	0.419176
14	0.345687	0.951323
15	0.383291	0.965107
16	0.088363	0.517139
17	0.036774	0.378175
18	0.031313	0.527785
19	1.028706	1.346417
20	0.043795	0.366333
21	0.041724	0.365274
22	0.050918	0.363132
23	0.031823	0.314272
24	0.036774	0.298711
25	0.128694	0.630923
26	0.017679	0.220162
27	0.016265	0.226699
28	0.114550	0.612056
29	0.077775	0.462791
30	0.040085	0.353649
31	0.007778	0.115086
32	0.097577	0.510635
33	0.039168	0.312433
34	0.056083	0.390479
35	0.045260	0.365821
36	0.038188	0.362746
37	0.012022	0.153290
38	0.055362	0.429431
39	0.469571	1.066802
40	0.284968	0.847125
41	0.183150	0.697510
42	0.563580	1.103523
43	0.280036	0.869783
44	0.059596	0.478838
45	0.030409	0.293457
46	0.064339	0.476672
47	0.074947	0.515826
48	0.020506	0.271816
49	0.040310	0.363490
50	0.030409	0.300607
51	0.125159	0.739211
52	0.063632	0.453212
53	0.067670	0.574878
54	0.059394	0.429773
55	0.090552	0.565604
56	0.123743	0.652284
57	0.066460	0.446514
58	0.169713	0.797697
59	0.269429	0.962195
60	0.059392	0.476595
61	0.137393	0.822187
62	0.144961	0.626815
63	0.033945	0.363167
64	0.069800	0.584964
65	0.030409	0.331933
66	0.189516	0.772453
67	0.045968	0.390984
68	0.008486	0.195302
69	0.015558	0.243312
70	0.021922	0.263776
71	0.210731	0.838326
72	0.019094	0.263939
73	1.145373	1.476325
74	0.225582	0.798483
75	0.556558	1.151885
76	0.089600	0.508613
77	0.389090	1.235277
78	0.149911	0.642957
79	0.468666	1.122746
80	0.353786	0.974289
81	0.405053	1.053444
82	0.561509	1.216191
83	0.230533	0.864779
84	0.353568	0.955759
85	0.283574	0.845105
86	0.154154	0.658271
87	0.201538	0.815381
88	0.140010	0.642988
89	0.198001	0.829579
90	0.034652	0.358193
91	0.445926	1.150143
92	0.603912	1.380790
93	0.851693	1.575701
94	0.309741	0.996379
95	0.362782	1.007664
96	0.354296	0.920532
97	0.366516	0.998262
98	0.341566	0.971600
99	0.101821	0.605028
100	0.181028	0.732193
101	0.082727	0.530210
102	0.357125	1.398959
103	0.133657	0.832826
104	0.327421	0.986548
105	0.232655	0.874334
106	0.242556	0.879768
107	0.251043	0.882204
108	0.179614	0.766524
109	0.046674	0.333237
110	0.297011	1.019654
111	0.548779	1.133663
112	1.077501	1.526202
113	0.102529	0.591304
114	0.321057	0.967295
115	0.403890	1.065207
116	0.583149	1.264662
117	0.937704	1.518135
118	0.514832	1.259931
119	0.116086	0.572545
120	0.120208	0.644797
121	0.152528	0.604327
122	0.026166	0.296266
123	0.032728	0.518095
124	0.142839	0.756089
125	0.116671	0.664356
126	0.231947	0.940477
127	0.083435	0.541342
128	0.067375	0.490095
129	0.049501	0.454974
130	0.071410	0.518397

(4) (continued)

131	0.082024	0.576958
132	0.212146	0.896718
133	0.087677	0.576134
134	0.070703	0.509520
135	0.088383	0.554110
136	0.080603	0.464432
137	0.125159	0.635541
138	0.101114	0.599866
139	0.168160	0.852878
140	0.131523	0.694444
141	0.071412	0.488909
142	0.209316	0.908353
143	0.109600	0.601896
144	0.046675	0.375400
145	0.136474	0.658415
146	0.220631	0.882726
147	0.115966	0.574831
148	0.098284	0.554937
149	0.072119	0.498102
150	0.136474	0.710115
151	0.135766	0.717681
152	0.055869	0.382357
153	0.118794	0.652766
154	0.212853	0.813369
155	0.210731	0.848404
156	0.120208	0.633728
157	0.062726	0.535519
158	0.027580	0.305547
159	0.026873	0.280244
160	0.054044	0.553206
161	0.031116	0.299356
162	0.025459	0.259399
163	0.053040	0.434699
164	0.045968	0.396376
165	0.050211	0.421826
166	0.260236	1.033788
167	0.157690	0.789926

(5)

Table 29. Means and Standard Deviations for 22 OAI General Physical Requirements Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	1.678598	1.490250
2	0.603234	1.165157
3	0.474521	1.054239
4	1.920471	1.496612
5	2.086678	1.466290
6	1.166599	1.455253
7	0.572117	1.069424
8	0.860659	1.373443
9	0.503517	1.028042
10	0.567874	1.046291
11	1.940278	1.253139
12	0.098992	0.500567
13	0.264479	0.746284
14	2.438159	1.463865
15	2.148855	1.852150
16	0.612428	1.019094
17	0.056568	0.333827
18	0.895222	1.143715
19	0.825971	1.165994
20	0.146375	0.558422
21	0.219217	0.736248
22	0.118085	0.539450

(6)

Table 30. Means and Standard Deviations for 39 OAI Representational Work Behavior Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	1.895705	1.618594
2	0.325299	0.994045
3	0.492202	1.224108
4	0.079901	0.451421
5	0.058695	0.376333
6	0.176785	0.665454
7	0.792766	1.340780
8	0.084148	0.479562
9	0.360659	0.974524
10	0.614547	1.294220
11	0.107480	0.602187
12	0.077787	0.520910
13	0.067889	0.519575
14	1.896427	1.618852
15	1.617781	1.352259
16	2.155272	1.569304
17	2.010288	1.381529
18	2.567565	1.662440
19	0.392484	0.996456
20	0.583431	1.190757
21	0.033238	0.307292
22	0.175370	0.628647
23	0.297011	0.887565
24	0.055157	0.406673
25	0.297718	0.949266
26	1.293312	1.437322
27	1.474934	1.315333
28	2.556250	1.336776
29	1.934622	1.269159
30	1.210447	0.985080
31	1.600815	1.106833
32	1.175266	1.561292
33	1.135695	1.505307
34	0.850047	1.326431
35	1.378052	1.497478
36	1.016215	1.121266
37	1.109532	1.536039
38	1.231072	1.494332
39	0.804080	1.264851

(7)

Table 31. Means and Standard Deviations for 32 OAI Interpersonal Work Behavior Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST,DEV,
1	0,439160	1,006750
2	0,586261	1,346752
3	2,075213	1,539724
4	2,389361	0,996879
5	0,714974	1,402150
6	0,661225	1,300167
7	0,647081	1,293664
8	0,539585	1,195395
9	0,898847	1,613894
10	0,408044	0,977241
11	1,135621	1,557073
12	0,985110	1,380414
13	0,557265	1,201766
14	0,400264	1,038304
15	0,354295	0,960417
16	0,254578	0,829372
17	0,094042	0,574589
18	0,073591	0,422596
19	0,140010	0,597352
20	0,196587	0,746428
21	0,211438	0,691514
22	0,053040	0,326917
23	0,092627	0,528574
24	0,150618	0,615232
25	2,332085	1,077202
26	1,620618	1,287585
27	1,024679	1,675344
28	0,329542	1,047459
29	0,284987	0,809538
30	0,918650	1,664221
31	0,362782	0,954288
32	0,149204	0,727311

(8)

Table 32. Means and Standard Deviations for 112 OAI Work Goals Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	0.492616	1.063882
2	0.362593	0.971594
3	0.411579	0.988362
4	0.315398	0.918932
5	0.212146	0.797299
6	0.733354	1.245565
7	0.749623	1.345804
8	0.263772	0.926620
9	0.150618	0.712258
10	0.137218	0.666626
11	0.127280	0.616499
12	0.314691	0.946111
13	0.228411	0.830709
14	0.205072	0.777602
15	0.178200	0.741536
16	0.204366	0.837739
17	0.324592	0.932194
18	0.271551	0.886156
19	0.120915	0.627431
20	0.092627	0.548323
21	0.118086	0.592011
22	0.154661	0.737656
23	0.467449	1.270228
24	0.235464	0.842287
25	0.403751	1.155182
26	0.265187	0.959695
27	0.246799	0.869681
28	0.236658	0.885313
29	0.359245	1.101150
30	0.169712	0.706440
31	0.265893	0.901314
32	0.320349	0.982407
33	0.307620	0.885156
34	0.539585	1.181708
35	0.204365	0.798022
36	0.169712	0.726206
37	0.139306	0.630380
38	0.210731	0.802987
39	0.200123	0.832070
40	0.102530	0.660288
41	0.103944	0.649257
42	0.097581	0.651877
43	0.052332	0.432332
44	0.049504	0.405661
45	0.012022	0.203972
46	0.053040	0.359055
47	0.056576	0.420177
48	0.036066	0.341876
49	0.030409	0.295657
50	0.092628	0.565746
51	0.028995	0.268414
52	0.016607	0.204157
53	0.040310	0.389795
54	0.046674	0.373948
55	0.031116	0.294588
56	0.043139	0.363167
57	0.181735	0.719856
58	0.023168	0.370466
59	0.018386	0.246371
60	0.006365	0.132657
61	0.062933	0.466382
62	0.056576	0.415096
63	0.074245	0.485591
64	0.111722	0.648510
65	0.102529	0.556796
66	0.052331	0.417349
67	0.094049	0.520246
68	0.091213	0.573769
69	0.081322	0.550123
70	0.123745	0.650156
71	0.045260	0.386517
72	1.357919	1.518646
73	0.623742	1.262361
74	0.466740	1.019213
75	0.355709	0.927300
76	0.555144	1.075060
77	1.345615	1.656614
78	0.327421	0.935000
79	1.301696	1.463886
80	0.341565	1.030287
81	1.085496	1.475080
82	0.665466	1.229105
83	0.776500	1.232735
84	0.319641	0.979403
85	0.197294	0.752368
86	0.036774	0.366772
87	0.137181	0.616656
88	0.606770	1.253236
89	0.622328	1.352877
90	0.606770	1.348965
91	0.237606	0.831125
92	0.340151	0.919734
93	0.563630	1.202631
94	0.629400	1.276293
95	0.391777	1.033349
96	0.469569	1.109071
97	0.246798	0.830578
98	0.190929	0.744101
99	0.490786	1.105624
100	0.141425	0.695322
101	0.224875	0.814935
102	0.402386	1.031680
103	0.265893	0.814726
104	0.582017	1.254529
105	0.137889	0.632918
106	0.096168	0.528631
107	0.425723	1.024671
108	0.182442	0.709279
109	[illegible]43263	0.803495
110	0.029702	0.299500
111	0.023337	0.271589
112	0.025458	0.264793

(9)

Table 33. Means and Standard Deviations for 77 OAI Work Context Items Based on the OAI Ratings of 1414 Jobs

VARIABLE	MEAN	ST.DEV.
1	0.495031	1.195447
2	0.244677	0.816145
3	0.138062	0.767532
4	0.403053	0.978296
5	0.057275	0.334763
6	0.175370	0.654027
7	0.224776	0.715791
8	2.864596	0.882723
9	0.143807	0.710097
10	0.232551	0.759296
11	0.060811	0.407606
12	0.172312	0.446300
13	0.262075	0.556458
14	0.135767	0.529477
15	0.042929	0.381255
16	0.254573	0.791055
17	0.110306	0.496779
18	0.246424	0.799399
19	0.137260	0.574601
20	0.535044	0.929718
21	0.190221	0.352620
22	0.629259	0.495108
23	0.138596	0.345557
24	0.119502	0.324303
25	0.364155	0.481354
26	2.379446	1.282167
27	2.666021	1.402055
28	2.461534	1.347586
29	3.329400	1.276217
30	3.515471	1.308506
31	2.460792	1.181154
32	0.913649	0.773424
33	0.038896	0.193407
34	0.039603	0.195032
35	0.900262	0.299717
36	0.058682	0.235132
37	0.042432	0.201636
38	0.074095	0.331326
39	0.028287	0.165845
40	0.092029	0.290028
41	1.636379	1.168785
42	1.615452	1.148410
43	2.053187	1.478512
44	1.414143	1.290465
45	0.239619	0.712398
46	1.327836	1.507165
47	1.492617	1.501663
48	1.350113	1.345565
49	1.722449	1.387163
50	1.255378	1.412060
51	3.455963	1.067401
52	3.033326	1.519419
53	0.706262	1.314826
54	0.596140	1.537266
55	0.166667	0.657382
56	0.091213	0.436493
57	0.354689	0.614730
58	0.330614	0.615911
59	0.129402	0.546606
60	0.191325	0.591015
61	3.516037	0.999550
62	3.126971	1.155643
63	3.370754	1.050968
64	2.201951	1.057467
65	0.764473	1.336036
66	1.022346	1.213664
67	1.666728	1.468472
68	0.733360	1.229032
69	1.064584	1.379219
70	1.203483	1.655340
71	1.763473	1.260491
72	2.537871	1.232774
73	2.132637	1.663280
74	1.162439	1.469299
75	2.262476	1.432261
76	1.815092	1.581222
77	2.096556	1.437469

APPENDIX F

EIGENVALUES, CUMULATIVE PROPORTIONS OF VARIANCE, AND COMMUNALITIES FROM EIGHT SECTIONAL FACTOR ANALYSES OF OAI WORK ELEMENTS (ITEMS) BASED ON THE OAI RATINGS OF 1414 JOBS*

(1) Table 34. Eigenvalues, Cumulative Proportions of Total Variance, and Communalities from the Factor Analysis of 115 Work Elements in the Information Received Section

(2) Table 35. Eigenvalues, Cumulative Proportions of Total Variance, and Communalities from the Factor Analysis of 38 Work Elements in the Mental Activities Section

(3) Table 36. Eigenvalues, Cumulative Proportions of Total Variance, and Communalities from the Factor Analysis of 167 Work Elements in the Physical Work Behavior Section

(4) Table 37. Eigenvalues, Cumulative Proportions of Total Variance, and Communalities from the Factor Analysis of 22 Work Elements in the General Physical Requirements Section

(5) Table 38. Eigenvalues, Cumulative Proportions of Variance, and Communalities from the Factor Analysis of 39 Work Elements in the Representational Work Behavior Section

(6) Table 39. Eigenvalues, Cumulative Proportions of Variance, and Communalities from the Factor Analysis of 32 Work Elements in the Interpersonal Work Behavior Section

(7) Table 40. Eigenvalues, Cumulative Proportions of Variance, and Communalities from the Factor Analysis of 112 Work Elements in the Work Goals Section

(8) Table 41. Eigenvalues, Cumulative Proportions of Variance, and Communalities from the Factor Analysis of 77 Work Elements in the Work Context Section

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*See Appendix E (1) to convert variable numbers in the eight sectional factor analyses to the appropriate OAI work element (item) numbers.

F (1)

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EIGENVALUES

   15.18533    10.26994     6.49817     5.56473     5.15540     3.42790     3.38972     2.93464     2.28984     2.02807
    1.77501     1.68022     1.46142     1.17952     1.10523     1.00566     0.96471     0.87330     0.73653     0.54184
    0.56860     0.54690     0.52484     0.46952     0.44822     0.40410     0.39539     0.37307     0.34633     0.30442
    0.27466     0.26423     0.23441     0.21750     0.21545     0.19566     0.19769     0.16727     0.16526     0.16126
    0.14006     0.13098     0.11919     0.11372     0.09830     0.09085     0.07232     0.06647     0.05643     0.05147
    0.04729     0.03616     0.02645     0.02434     0.01304     0.00941     0.00516    -0.00064    -0.00632    -0.01028
   -0.01766    -0.02175    -0.02818    -0.03541    -0.03956    -0.04583    -0.04792    -0.05065    -0.05531    -0.06040
   -0.06440    -0.07104    -0.07323    -0.07536    -0.07911    -0.08599    -0.08911    -0.09192    -0.09505    -0.09633
   -0.10322    -0.11300    -0.11594    -0.11986    -0.12186    -0.13061    -0.13216    -0.13256    -0.13652    -0.14069
   -0.14481    -0.15154    -0.15652    -0.15741    -0.16050    -0.16256    -0.17080    -0.17765    -0.17915    -0.18269
   -0.18761    -0.19088    -0.19337    -0.19670    -0.20646    -0.21251    -0.21798    -0.22361    -0.22910    -0.23359
   -0.24556    -0.24729    -0.26198    -0.28066    -0.28928

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0.13205     0.22135     0.27786     0.32625     0.37108     0.40523     0.43471     0.46023     0.48014     0.49778
    0.51321     0.52782     0.54053     0.55079     0.56040     0.56914     0.57753     0.58512     0.59153     0.59711
    0.60205     0.60681     0.61137     0.61546     0.61935     0.62297     0.62631     0.62955     0.63256     0.63521
    0.63760     0.63990     0.64194     0.64383     0.64570     0.64740     0.64904     0.65049     0.65194     0.65317
    0.65438     0.65552     0.65656     0.65755     0.65840     0.65919     0.65982     0.66040     0.66089     0.66134
    0.66175     0.66207     0.66230     0.66251     0.66262     0.66270     0.66275

VARIABLE     ESTIMATED           FINAL
            COMMUNALITY       COMMUNALITY
    1        0.819776          0.819776
    2        0.665272          0.665273
    3        0.725721          0.725721
    4        0.795685          0.795687
    5        0.599601          0.599600
    6        0.695442          0.695441
    7        0.609491          0.609491
    8        0.745067          0.745066
    9        0.584757          0.584756
   10        0.535007          0.535005
   11        0.663745          0.663745
   12        0.650248          0.650250
   13        0.770153          0.770150
   14        0.675807          0.675809
   15        0.762656          0.762657
   16        0.803912          0.803913
   17        0.615891          0.615887
   18        0.787034          0.787036
   19        0.797362          0.797363
   20        0.711215          0.711213
   21        0.636477          0.636476
   22        0.772259          0.772259
   23        0.747914          0.747913
   24        0.682423          0.682421
   25        0.618263          0.618261
   26        0.683580          0.683530
   27        0.392250          0.392249
   28        0.713492          0.713492
   29        0.552736          0.552734
   30        0.576077          0.576075
   31        0.720500          0.720498
   32        0.594451          0.594450
   33        0.550939          0.550935
   34        0.505823          0.505823
   35        0.437777          0.437775
   36        0.596069          0.596241
   37        0.317651          0.317651
   38        0.610248          0.610249
   39        0.366776          0.366777
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F (1) (continued)

40	0.505561	0.505560
41	0.366781	0.366780
42	0.537318	0.537319
43	0.359257	0.359255
44	0.483195	0.483190
45	0.477845	0.477845
46	0.509205	0.509203
47	0.618747	0.618751
48	0.402498	0.402497
49	0.653523	0.653526
50	0.714452	0.714451
51	0.777664	0.777679
52	0.537373	0.537371
53	0.687731	0.687731
54	0.132146	0.132144
55	0.576364	0.576362
56	0.651453	0.651452
57	0.542917	0.542917
58	0.796743	0.796759
59	0.750725	0.750721
60	0.659818	0.659815
61	0.684594	0.684594
62	0.606381	0.606380
63	0.584931	0.584932
64	0.822615	0.822697
65	0.413770	0.413751
66	0.566244	0.566243
67	0.809505	0.809437
68	0.394154	0.394149
69	0.656168	0.656141
70	0.739962	0.739951
71	0.656945	0.656905
72	0.691769	0.691763
73	0.584548	0.584533
74	0.577680	0.577596
75	0.660484	0.660469
76	0.672910	0.672898
77	0.718702	0.718704
78	0.689787	0.689777
79	0.650591	0.650587
80	0.612364	0.612353
81	0.797275	0.797327
82	0.701134	0.701113
83	0.552999	0.552990
84	0.821976	0.821970
85	0.763037	0.763043
86	0.730060	0.730053
87	0.585335	0.585332
88	0.612042	0.612039
89	0.530663	0.530662
90	0.355144	0.355142
91	0.558499	0.558500
92	0.453047	0.453043
93	0.474002	0.473998
94	0.507996	0.507991
95	0.443857	0.443857
96	0.627517	0.627515
97	0.671522	0.671518
98	0.523279	0.523281
99	0.635660	0.635659
100	0.432811	0.432812
101	0.639189	0.639183
102	0.375170	0.375165
103	0.738582	0.739066
104	0.435170	0.435181
105	0.532157	0.532943

F (1) (continued)

106	0.459263	0.459264
107	0.563582	0.563591
108	0.298105	0.298103
109	0.467470	0.467479
110	0.267633	0.267634
111	0.475899	0.475898
112	0.583012	0.583012
113	0.491841	0.491839
114	0.381185	0.381184
115	0.448452	0.448449

F (2)

```
EIGENVALUES

  13.38876     3.63402     2.41738     1.66715     1.10358     0.97911     0.51737     0.46870     0.37390     0.31473
   0.24868     0.19407     0.16237     0.13873     0.11564     0.09532     0.08155     0.06532     0.04102     0.03521
   0.02239     0.01283     0.00454    -0.01039    -0.01996    -0.02573    -0.03730    -0.04326    -0.05763    -0.06046
  -0.08673    -0.08775    -0.09556    -0.11366    -0.11893    -0.13278    -0.15249    -0.16706

CUMULATIVE PROPORTION OF TOTAL VARIANCE

   0.35234     0.44797     0.51158     0.55546     0.58450     0.61026     0.62388     0.63621     0.64605     0.65433
   0.66088     0.66572     0.66999     0.67364     0.67669     0.67920     0.68134     0.68306     0.68414     0.68507
   0.68565     0.68599     0.68611


VARIABLE    ESTIMATED          FINAL
           COMMUNALITY      COMMUNALITY
    1       0.572380         0.572318
    2       0.685628         0.685837
    3       0.374403         0.374289
    4       0.674038         0.674055
    5       0.519112         0.519177
    6       0.720116         0.720115
    7       0.696453         0.696941
    8       0.682592         0.681862
    9       0.382064         0.391913
   10       0.555171         0.557569
   11       0.645537         0.645530
   12       0.742151         0.742132
   13       0.607184         0.607262
   14       0.552269         0.552424
   15       0.577360         0.577322
   16       0.793689         0.793701
   17       0.756595         0.756576
   18       0.610023         0.610916
   19       0.682542         0.682613
   20       0.593551         0.593836
   21       0.686657         0.686054
   22       0.572278         0.572276
   23       0.787375         0.787759
   24       0.842176         0.842477
   25       0.674352         0.674228
   26       0.601677         0.601655
   27       0.651551         0.651447
   28       0.670716         0.670611
   29       0.557170         0.557059
   30       0.679925         0.679754
   31       0.754209         0.754174
   32       0.782047         0.781969
   33       0.799567         0.799555
   34       0.753640         0.753583
   35       0.602253         0.602330
   36       0.779588         0.779539
   37       0.687259         0.688404
   38       0.555815         0.555039
```

F (3)

```
EIGENVALUES

  11.72892    6.27099    5.35657    4.83361    4.37592    3.10252    3.00702    2.42358    2.10882    2.05816
   1.83370    1.74875    1.59239    1.51754    1.40775    1.33209    1.28752    1.19594    1.14497    1.11388
   1.04982    0.99155    0.96496    0.93532    0.90505    0.87089    0.85437    0.82836    0.81343    0.74679
   0.69626    0.68240    0.67341    0.63812    0.60164    0.57123    0.55769    0.54241    0.52000    0.49839
   0.49094    0.48370    0.45459    0.44215    0.43152    0.41809    0.39544    0.37977    0.36359    0.35180
   0.32876    0.32559    0.31046    0.29455    0.29102    0.28160    0.26319    0.26015    0.25736    0.23500
   0.22666    0.22157    0.21788    0.19566    0.19403    0.17445    0.17191    0.16268    0.16135    0.14934
   0.13997    0.13046    0.12375    0.11449    0.11166    0.09540    0.08297    0.07984    0.06857    0.06152
   0.05616    0.05137    0.04065    0.03344    0.02909    0.02026    0.01788   -0.00381   -0.00563   -0.00570
  -0.01764   -0.01880   -0.02442   -0.02975   -0.03114   -0.04095   -0.04929   -0.05349   -0.06038   -0.07025
  -0.07337   -0.07601   -0.08493   -0.08602   -0.09113   -0.09826   -0.10379   -0.10680   -0.11463   -0.11896
  -0.12074   -0.13057   -0.13499   -0.13860   -0.14350   -0.14774   -0.15313   -0.15796   -0.16031   -0.16577
  -0.17319   -0.17658   -0.17902   -0.18641   -0.18711   -0.19287   -0.19757   -0.20014   -0.20369   -0.21155
  -0.21738   -0.22005   -0.22511   -0.22747   -0.23445   -0.23991   -0.24193   -0.24471   -0.24942   -0.25561
  -0.26101   -0.26465   -0.26928   -0.27457   -0.28090   -0.28709   -0.29201   -0.29612   -0.30256   -0.31320
  -0.31437   -0.31457   -0.32212   -0.33032   -0.33928   -0.34368   -0.34928   -0.35194   -0.35905   -0.36195
  -0.37374   -0.38196   -0.40132   -0.40445   -0.41574   -0.42969   -0.45217

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0.07023    0.10773    0.13986    0.16880    0.19501    0.21358    0.23159    0.24613    0.25876    0.27108
    0.28209    0.29257    0.30210    0.31119    0.31962    0.32760    0.33531    0.34247    0.34932    0.35599
    0.36228    0.36822    0.37400    0.37960    0.38502    0.39023    0.39535    0.40031    0.40518    0.40965
    0.41382    0.41791    0.42194    0.42576    0.42937    0.43279    0.43613    0.43933    0.44249    0.44548
    0.44842    0.45131    0.45404    0.45669    0.45927    0.46178    0.46414    0.46642    0.46860    0.47070
    0.47267    0.47462    0.47648    0.47824    0.47999    0.48167    0.48325    0.48481    0.48635    0.48775
    0.48911    0.49044    0.49174    0.49291    0.49408    0.49512    0.49615    0.49712    0.49809    0.49898
    0.49982    0.50060    0.50134    0.50203    0.50270    0.50327    0.50377    0.50424    0.50465    0.50502
    0.50537    0.50568    0.50592    0.50612    0.50630    0.50642    0.50652

 VARIABLE    ESTIMATED          FINAL
             COMMUNALITY      COMMUNALITY
     1        0.524536         0.524534
     2        0.468350         0.468307
     3        0.545845         0.545858
     4        0.276467         0.276443
     5        0.527415         0.527417
     6        0.511749         0.511742
     7        0.360204         0.360297
     8        0.443208         0.443204
     9        0.437311         0.437247
    10        0.365136         0.365121
    11        0.411422         0.411396
    12        0.460200         0.460201
    13        0.250125         0.250113
    14        0.355671         0.355672
    15        0.504216         0.504154
    16        0.594603         0.594557
    17        0.606632         0.606165
    18        0.782652         0.782683
    19        0.697543         0.697660
    20        0.503133         0.503125
    21        0.272596         0.272588
    22        0.323538         0.323326
    23        0.399310         0.399292
    24        0.355593         0.355535
    25        0.516068         0.516054
    26        0.344754         0.344777
    27        0.337241         0.337260
    28        0.481764         0.481751
    29        0.305247         0.305233
    30        0.475146         0.475067
    31        0.234374         0.234876
```

F (3) (continued)

32	0.515742	0.515738
33	0.494259	0.494266
34	0.566616	0.566612
35	0.250077	0.250067
36	0.561700	0.561702
37	0.634710	0.635436
38	0.612512	0.612488
39	0.641013	0.640962
40	0.409944	0.409929
41	0.299397	0.299396
42	0.199616	0.199604
43	0.213059	0.213066
44	0.435355	0.435352
45	0.362017	0.361954
46	0.189693	0.189692
47	0.187227	0.187228
48	0.397860	0.397845
49	0.292424	0.292456
50	0.229577	0.229581
51	0.584803	0.584720
52	0.268910	0.268701
53	0.228708	0.228617
54	0.433036	0.433033
55	0.413363	0.413350
56	0.410258	0.410260
57	0.357022	0.357018
58	0.664512	0.664440
59	0.648631	0.648616
60	0.198272	0.198266
61	0.568104	0.568100
62	0.259164	0.259169
63	0.191487	0.191488
64	0.509927	0.509924
65	0.100014	0.100021
66	0.415072	0.415066
67	0.153358	0.153361
68	0.030318	0.030308
69	0.238682	0.238665
70	0.172358	0.172353
71	0.249283	0.249281
72	0.045598	0.045534
73	0.544558	0.544559
74	0.409263	0.409257
75	0.554021	0.554029
76	0.583029	0.585085
77	0.502583	0.502569
78	0.459280	0.459287
79	0.689627	0.689642
80	0.721118	0.721114
81	0.461210	0.461190
82	0.491243	0.491239
83	0.654189	0.654162
84	0.568715	0.568695
85	0.303260	0.303253
86	0.437374	0.437652
87	0.354026	0.354044
88	0.436095	0.436059
89	0.249774	0.249772
90	0.554097	0.554225
91	0.399734	0.399755
92	0.547115	0.547128
93	0.424592	0.424585
94	0.758244	0.758239
95	0.647382	0.647380
96	0.654979	0.654971
97	0.679169	0.679108

F (3) (continued)

98	0.711327	0.711330
99	0.290742	0.290695
100	0.382812	0.382814
101	0.458009	0.458015
102	0.480141	0.480144
103	0.630614	0.630614
104	0.585658	0.585920
105	0.654380	0.654350
106	0.600546	0.600573
107	0.696243	0.696327
108	0.407396	0.407332
109	0.240825	0.240821
110	0.670588	0.670049
111	0.565929	0.565862
112	0.426723	0.426758
113	0.612270	0.612269
114	0.445085	0.445040
115	0.359462	0.359478
116	0.307830	0.307835
117	0.396493	0.396487
118	0.578211	0.578215
119	0.440462	0.440516
120	0.697563	0.697550
121	0.683416	0.683396
122	0.416683	0.416680
123	0.732523	0.752463
124	0.595492	0.595494
125	0.499411	0.500102
126	0.413055	0.413069
127	0.577777	0.577779
128	0.134557	0.134556
129	0.099904	0.099902
130	0.131375	0.131376
131	0.232424	0.232419
132	0.435622	0.435625
133	0.345749	0.345742
134	0.152420	0.152420
135	0.273729	0.273730
136	0.243286	0.243232
137	0.319159	0.319191
138	0.200310	0.200301
139	0.220273	0.220275
140	0.142730	0.142732
141	0.325864	0.325867
142	0.378285	0.378274
143	0.297159	0.297190
144	0.391325	0.391310
145	0.427421	0.427441
146	0.419907	0.419923
147	0.429287	0.429283
148	0.212739	0.212741
149	0.431743	0.431761
150	0.344388	0.344365
151	0.182397	0.182383
152	0.165549	0.165558
153	0.248593	0.248496
154	0.286231	0.286274
155	0.455904	0.455865
156	0.290744	0.290724
157	0.251659	0.251628
158	0.447849	0.447974
159	0.311068	0.311042
160	0.434495	0.434476
161	0.288376	0.288392
162	0.347501	0.347495
163	0.164902	0.164859

F (3) (continued)

164	0.258256	0.258254
165	0.198899	0.198894
166	0.185079	0.185070
167	0.136135	0.136132

```
                                                    E (4)

EIGENVALUES

      5.70133      2.19087      1.44987      0.98769      0.78405      0.60736      0.45631      0.41289      0.26110      0.10301
      0.08933      0.07037      0.05953      0.02711      0.01273     -0.01553     -0.02451     -0.03589     -0.05288     -0.06210
     -0.07041     -0.10932

CUMULATIVE PROPORTION OF TOTAL VARIANCE

      0.25915      0.35874      0.42464      0.46954      0.50517      0.53278      0.55352      0.57229      0.58416      0.58884
      0.59290      0.59610      0.59881      0.60004      0.60062


VARIABLE      ESTIMATED            FINAL
             COMMUNALITY        COMMUNALITY
    1          0.591688           0.591573
    2          0.675730           0.677081
    3          0.550401           0.551417
    4          0.619452           0.618775
    5          0.732168           0.732980
    6          0.574377           0.573898
    7          0.585916           0.585529
    8          0.638218           0.638321
    9          0.746961           0.746807
   10          0.749800           0.749818
   11          0.276772           0.278496
   12          0.568071           0.574563
   13          0.445445           0.446276
   14          0.692424           0.695588
   15          0.632647           0.630497
   16          0.435858           0.435262
   17          0.350906           0.346611
   18          0.584978           0.582782
   19          0.703838           0.706976
   20          0.477577           0.476982
   21          0.565688           0.563908
   22          0.642060           0.647339
```

F (5)

```
EIGENVALUES

  12.46603     2.54562     2.45576     1.62817     1.22828     0.97932     0.77689     0.60915     0.53806     0.51085
   0.38239     0.32825     0.20149     0.18758     0.17115     0.10533     0.08236     0.07593     0.05082     0.04135
   0.03282     0.02805     0.01931     0.01092    -0.00324    -0.01440    -0.02679    -0.02919    -0.03095    -0.03894
  -0.05778    -0.05577    -0.06914    -0.08777    -0.09918    -0.11504    -0.11992    -0.12118    -0.13173

CUMULATIVE PROPORTION OF TOTAL VARIANCE

   0.31964     0.38491     0.44788     0.48963     0.52112     0.54624     0.56616     0.58177     0.59557     0.60867
   0.61850     0.62692     0.63208     0.63689     0.64128     0.64398     0.64609     0.64804     0.64934     0.65040
   0.65124     0.65196     0.65246     0.65274


VARIABLE    ESTIMATED          FINAL
           COMMUNALITY      COMMUNALITY
    1       0.763610          0.763296
    2       0.804668          0.812279
    3       0.644250          0.644755
    4       0.456204          0.457218
    5       0.472840          0.475096
    6       0.379911          0.379741
    7       0.612046          0.612790
    8       0.272895          0.272452
    9       0.440227          0.440151
   10       0.613340          0.613339
   11       0.639000          0.636620
   12       0.805703          0.809272
   13       0.389891          0.389720
   14       0.932534          0.933176
   15       0.852720          0.852606
   16       0.800018          0.799941
   17       0.660886          0.660832
   18       0.623251          0.623103
   19       0.369243          0.369190
   20       0.561445          0.561310
   21       0.133129          0.133067
   22       0.327802          0.326636
   23       0.426702          0.427125
   24       0.496576          0.496523
   25       0.707041          0.705096
   26       0.646984          0.646790
   27       0.753161          0.754085
   28       0.688496          0.688470
   29       0.853916          0.853902
   30       0.527196          0.527185
   31       0.660316          0.660222
   32       0.649180          0.649005
   33       0.717340          0.717349
   34       0.713614          0.713771
   35       0.833773          0.833723
   36       0.801046          0.800989
   37       0.654182          0.654185
   38       0.806881          0.806832
   39       0.743849          0.743898
```

F (6)

```
EIGENVALUES

    7,73794     2,80155     1,63988     1,37140     1,24461     0,95749     0,84663     0,60576     0,57510     0,31143
    0,25454     0,19287     0,15663     0,14292     0,13223     0,10010     0,07213     0,04353     0,03340     0,01126
    0,00388     0,00114    -0,01963    -0,03094    -0,04725    -0,07233    -0,08673    -0,08998    -0,11019    -0,12932
   -0,13792    -0,16970

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0,24181     0,32936     0,38061     0,42346     0,46236     0,49228     0,51873     0,53766     0,55564     0,56537
    0,57332     0,57935     0,58424     0,58871     0,59284     0,59597     0,59822     0,59958     0,60063     0,60098
    0,60110     0,60113

VARIABLE    ESTIMATED         FINAL
           COMMUNALITY     COMMUNALITY
    1        0,278378        0,278987
    2        0,534233        0,533927
    3        0,485529        0,485724
    4        0,528009        0,527894
    5        0,682495        0,682375
    6        0,568951        0,567854
    7        0,830684        0,830676
    8        0,809412        0,809386
    9        0,875527        0,875550
   10        0,750856        0,750940
   11        0,765779        0,765652
   12        0,742047        0,742242
   13        0,692859        0,691681
   14        0,787355        0,789023
   15        0,723247        0,722960
   16        0,400067        0,400001
   17        0,375001        0,373242
   18        0,576982        0,577386
   19        0,468872        0,468727
   20        0,382015        0,381993
   21        0,423554        0,423555
   22        0,593500        0,593368
   23        0,465902        0,468889
   24        0,448270        0,446394
   25        0,547768        0,549262
   26        0,257301        0,257418
   27        0,860910        0,861006
   28        0,598481        0,600991
   29        0,302101        0,301757
   30        0,741899        0,742634
   31        0,286493        0,286285
   32        0,558050        0,558735
```

F (7)

```
EIGENVALUES

   10.03946    9.60830     5.74968     4.80883     4.16342     3.38527     3.08924     2.43366     2.27415     1.86803
    1.72468    1.48757     1.41121     1.29040     1.20827     1.16254     1.05142     0.95579     0.90972     0.81820
    0.75638    0.68873     0.68296     0.61253     0.53954     0.51071     0.48379     0.41298     0.40118     0.38062
    0.35787    0.34444     0.31810     0.31486     0.28945     0.26532     0.25635     0.25223     0.21978     0.21779
    0.19445    0.17694     0.16262     0.14825     0.13427     0.12342     0.11659     0.11071     0.10300     0.09832
    0.08250    0.07265     0.06710     0.06450     0.05313     0.04212     0.03454     0.02779     0.02439     0.01597
    0.00726    0.00021    -0.00175    -0.01159    -0.01386    -0.02242    -0.02530    -0.02864    -0.03925    -0.04193
   -0.04578   -0.04848    -0.05502    -0.06269    -0.06495    -0.06849    -0.07579    -0.07990    -0.08297    -0.08729
   -0.09150   -0.09424    -0.10219    -0.10613    -0.11119    -0.11369    -0.12159    -0.12230    -0.12994    -0.13615
   -0.14235   -0.14786    -0.15157    -0.15473    -0.15696    -0.16354    -0.16708    -0.17464    -0.17729    -0.18187
   -0.18523   -0.19801    -0.20321    -0.20786    -0.21398    -0.22621    -0.23511    -0.24157    -0.24996    -0.25290
   -0.26902   -0.28522

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0.08964    0.17007     0.22141     0.26435     0.30170     0.33192     0.35951     0.38124     0.40154     0.41822
    0.43362    0.44690     0.45950     0.47107     0.48186     0.49224     0.50163     0.51016     0.51829     0.52559
    0.53235    0.53849     0.54459     0.55006     0.55488     0.55944     0.56376     0.56745     0.57103     0.57443
    0.57762    0.58070     0.58354     0.58635     0.58893     0.59127     0.59356     0.59581     0.59778     0.59972
    0.60146    0.60304     0.60449     0.60582     0.60702     0.60812     0.60916     0.61015     0.61107     0.61186
    0.61259    0.61325     0.61385     0.61442     0.61490     0.61527     0.61558     0.61583     0.61605     0.61622
    0.61626    0.61620

VARIABLE    ESTIMATED         FINAL
            COMMUNALITY       COMMUNALITY
     1      0.678700          0.678668
     2      0.862023          0.862030
     3      0.728649          0.728552
     4      0.827891          0.827802
     5      0.482066          0.482060
     6      0.569539          0.569465
     7      0.564802          0.564777
     8      0.165238          0.165264
     9      0.771467          0.771390
    10      0.868195          0.868902
    11      0.676040          0.676177
    12      0.716157          0.716133
    13      0.843818          0.843619
    14      0.797839          0.797750
    15      0.809805          0.809605
    16      0.593889          0.593689
    17      0.637792          0.637808
    18      0.651560          0.651625
    19      0.669962          0.669790
    20      0.744536          0.745339
    21      0.738619          0.738532
    22      0.446624          0.447046
    23      0.545855          0.550406
    24      0.357692          0.357638
    25      0.250246          0.250255
    26      0.152062          0.152089
    27      0.238611          0.238533
    28      0.179012          0.179028
    29      0.306717          0.306929
    30      0.358549          0.358344
    31      0.248449          0.247562
    32      0.314013          0.313885
    33      0.507387          0.507982
    34      0.506421          0.506199
    35      0.692839          0.692389
    36      0.541786          0.541716
    37      0.536240          0.536010
    38      0.470836          0.470879
```

F (7) (continued)

39	0.726561	0.726636
40	0.862731	0.862616
41	0.854314	0.854410
42	0.614745	0.614711
43	0.715064	0.715053
44	0.644205	0.644297
45	0.117622	0.117650
46	0.731045	0.731178
47	0.802077	0.802115
48	0.749267	0.749152
49	0.623437	0.324094
50	0.749241	0.749416
51	0.720035	0.719830
52	0.642683	0.643005
53	0.680837	0.680649
54	0.696081	0.696050
55	0.409042	0.409047
56	0.444716	0.444634
57	0.666384	0.666360
58	0.201329	0.201212
59	0.606103	0.606363
60	0.584343	0.584350
61	0.645901	0.646023
62	0.554082	0.553961
63	0.660634	0.660658
64	0.766578	0.766533
65	0.792593	0.792627
66	0.364064	0.364120
67	0.444490	0.444323
68	0.688661	0.688657
69	0.577409	0.577344
70	0.706251	0.706229
71	0.475396	0.475391
72	0.536555	0.536588
73	0.582160	0.581912
74	0.625678	0.625403
75	0.581335	0.581464
76	0.540492	0.540612
77	0.667609	0.667536
78	0.339660	0.339324
79	0.599710	0.599712
80	0.468727	0.468709
81	0.674117	0.674034
82	0.639919	0.639928
83	0.632373	0.632383
84	0.511213	0.511415
85	0.241481	0.241486
86	0.281640	0.281624
87	0.261851	0.261437
88	0.557447	0.557433
89	0.621846	0.621836
90	0.427276	0.426815
91	0.464475	0.464493
92	0.534979	0.535478
93	0.598508	0.598535
94	0.634638	0.634656
95	0.569671	0.569668
96	0.650468	0.650389
97	0.676395	0.676379
98	0.336392	0.337032
99	0.645272	0.645328
100	0.167006	0.166990
101	0.452079	0.451914
102	0.592451	0.592470
103	0.481090	0.480896
104	0.486549	0.487037

F (7) (continued)

105	0.593174	0.593357
106	0.117928	0.117933
107	0.507648	0.507419
108	0.545041	0.545061
109	0.518763	0.518876
110	0.404433	0.403202
111	0.671340	0.675048
112	0.335413	0.334981

F (8)

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EIGENVALUES

   13.83421      5.99590      3.65475      3.06045      2.06398      1.91013      1.42603      1.30961      1.05208      0.92027
    0.83512      0.78534      0.67332      0.63613      0.56274      0.53119      0.49647      0.44506      0.41435      0.38757
    0.34027      0.32577      0.30212      0.27868      0.25500      0.22531      0.18858      0.17056      0.16077      0.12189
    0.11995      0.11093      0.08269      0.06575      0.05982      0.04382      0.01732      0.01432      0.00947     -0.00172
   -0.00711     -0.01628     -0.02914     -0.03529     -0.04503     -0.05188     -0.05635     -0.06399     -0.07066     -0.08114
   -0.08905     -0.09243     -0.10315     -0.11555     -0.12120     -0.13177     -0.13365     -0.13536     -0.14238     -0.14739
   -0.15526     -0.16234     -0.17337     -0.17983     -0.19414     -0.21221     -0.21648     -0.21905     -0.22611     -0.23434
   -0.25137     -0.26387     -0.27661     -0.29583     -0.31498     -0.33258     -0.36261

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0.17967      0.25753      0.30500      0.34474      0.37155      0.39036      0.41488      0.43189      0.44555      0.45750
    0.46836      0.47856      0.48730      0.49556      0.50288      0.50978      0.51623      0.52201      0.52739      0.53242
    0.53684      0.54107      0.54500      0.54862      0.55193      0.55485      0.55730      0.55952      0.56161      0.56332
    0.56488      0.56632      0.56735      0.56824      0.56902      0.56959      0.56981      0.57000      0.57011

VARIABLE    ESTIMATED         FINAL
            COMMUNALITY       COMMUNALITY
    1       0.635982          0.635983
    2       0.471671          0.471666
    3       0.383359          0.383356
    4       0.456522          0.456476
    5       0.184475          0.184485
    6       0.361609          0.361624
    7       0.253008          0.253009
    8       0.273181          0.273184
    9       0.603932          0.603955
   10       0.558222          0.558215
   11       0.360595          0.360573
   12       0.574052          0.574035
   13       0.384927          0.384928
   14       0.395514          0.395494
   15       0.273018          0.273011
   16       0.437372          0.437374
   17       0.141500          0.141509
   18       0.241977          0.241974
   19       0.242005          0.241934
   20       0.705235          0.705250
   21       0.339082          0.339084
   22       0.654796          0.654701
   23       0.166565          0.166552
   24       0.305429          0.305398
   25       0.676769          0.676730
   26       0.714376          0.714376
   27       0.681529          0.681538
   28       0.620840          0.620844
   29       0.493008          0.493009
   30       0.585968          0.585968
   31       0.597641          0.597640
   32       0.682931          0.684850
   33       0.451301          0.451105
   34       0.379482          0.379363
   35       0.565546          0.565482
   36       0.562606          0.562777
   37       0.356585          0.356547
   38       0.536404          0.536392
   39       0.130435          0.130431
   40       0.738287          0.738325
   41       0.474733          0.474732
   42       0.530545          0.530540
   43       0.441175          0.441148
   44       0.430262          0.430283
   45       0.312752          0.312774
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F (8) (continued)

46	0.561966	0.561967
47	0.409678	0.409653
48	0.581127	0.581136
49	0.591285	0.591279
50	0.778980	0.778971
51	0.257093	0.257214
52	0.313162	0.313132
53	0.237565	0.237577
54	0.450965	0.450961
55	0.495197	0.495210
56	0.235974	0.235969
57	0.528773	0.528806
58	0.512838	0.512853
59	0.571810	0.571683
60	0.635874	0.637692
61	0.502671	0.502463
62	0.592944	0.592911
63	0.453503	0.453511
64	0.685201	0.685193
65	0.578737	0.578734
66	0.602902	0.602854
67	0.527830	0.527814
68	0.614490	0.614497
69	0.728575	0.728576
70	0.665910	0.665909
71	0.319364	0.319251
72	0.455701	0.455700
73	0.774225	0.774220
74	0.628567	0.628549
75	0.805409	0.805394
76	0.694073	0.694077
77	0.754263	0.754242

APPENDIX G

FACTOR LOADINGS FROM ORTHOGONAL ROTATIONS IN EIGHT SECTIONAL FACTOR ANALYSES OF OAI WORK ELEMENTS (ITEMS) BASED ON THE OAI RATINGS OF 1414 JOBS*

(1) Table 42.	Loadings for 20 Orthogonally Rotated Information Received Factors (115 Variables, or Work Elements)
(2) Table 43.	Loadings for 10 Orthogonally Rotated Mental Activities Factors (38 Variables, or Work Elements)
(3) Table 44.	Loadings for 30 Orthogonally Rotated Physical Work Behavior Factors (167 Variables, or Work Elements)
(4) Table 45.	Loadings for 9 Orthogonally Rotated General Physical Requirements Factors (22 Variables, or Work Elements)
(5) Table 46.	Loadings for 12 Orthogonally Rotated Representational Work Behavior Factors (39 Variables, or Work Elements)
(6) Table 47.	Loadings for 11 Orthogonally Rotated Interpersonal Work Behavior Factors (32 Variables, or Work Elements)
(7) Table 48.	Loadings for 26 Orthogonally Rotated Work Goals Factors (112 Variables, or Work Elements)
(8) Table 49.	Loadings for 14 Orthogonally Rotated Work Context Factors (77 Variables, or Work Elements)

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*See Appendix E (1) to convert variable numbers in the eight sectional factor analyses to the appropriate OAI work element (item) numbers.

G (1)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9	10
1	0.14728	-0.04296	0.00375	0.04622	-0.00890	0.87546	0.10230	-0.07677	0.03654	0.00310
2	0.08674	-0.05867	-0.03598	-0.02288	-0.03419	0.76793	0.17284	-0.07789	0.09149	0.00679
3	0.16372	-0.04535	-0.04019	0.09212	-0.02775	0.81042	0.09663	-0.04928	0.03197	-0.00429
4	0.19583	-0.02142	-0.03684	0.02431	-0.03144	0.84906	0.07588	-0.12076	0.05534	-0.00663
5	0.08280	-0.04965	-0.00238	0.04521	0.00288	0.73858	0.07669	-0.02041	0.05648	-0.01907
6	0.16170	-0.03741	-0.01194	0.01382	-0.01125	0.75549	0.13424	-0.24753	0.05792	-0.00171
7	0.06729	-0.09742	-0.04173	-0.00052	-0.01338	0.74601	0.10688	-0.07332	0.07449	-0.02704
8	0.19903	0.10837	-0.04092	-0.02076	0.00224	0.43332	0.06958	-0.61148	-0.00113	-0.00804
9	0.23164	0.07994	0.01485	0.03678	-0.01071	0.60524	0.08142	-0.12760	-0.00077	-0.01953
10	0.23060	0.06241	0.00632	0.03328	-0.03035	0.46799	0.18018	-0.33600	-0.00395	-0.00067
11	0.25018	0.16237	-0.02684	0.06032	-0.04264	0.50522	0.01661	-0.44050	-0.00126	0.00338
12	0.28862	0.15345	-0.02119	0.02539	0.00720	0.22132	0.09850	-0.45391	-0.03656	0.00124
13	0.80871	0.04994	0.04292	0.03756	0.00208	0.21419	0.02869	-0.02174	-0.01732	0.01559
14	0.74453	0.00971	-0.00288	0.04687	0.00337	0.27210	0.00397	-0.03203	-0.00322	-0.01825
15	0.83525	-0.01458	-0.01375	-0.00063	-0.02595	0.13354	0.02646	-0.14997	0.02797	-0.01375
16	0.84679	0.00619	-0.02066	0.02001	0.00082	0.19929	-0.00103	-0.05287	0.02045	-0.00722
17	0.63290	0.06286	0.04021	0.01911	0.02261	0.27854	0.01832	0.03712	-0.01269	0.00020
18	0.79001	0.07438	-0.02570	-0.02130	-0.02073	0.06036	0.04477	-0.32928	0.02030	-0.00896
19	0.81649	0.08783	-0.03026	0.01501	-0.01390	0.01545	0.02569	-0.27027	0.03043	-0.00502
20	0.74415	0.10754	0.04701	0.05715	0.01601	0.20144	0.04876	-0.06893	-0.01940	-0.00439
21	0.78617	0.02458	0.02678	0.01503	-0.01549	0.12768	0.08623	-0.13696	0.01872	-0.00645
22	0.73291	0.14783	-0.01601	0.00141	-0.00405	0.05482	-0.02022	-0.24796	0.00886	0.00125
23	0.71590	0.09635	0.00172	0.01752	-0.01767	0.00795	0.06722	-0.32364	-0.01321	-0.00541
24	0.26115	-0.16345	0.02972	-0.04748	0.03435	0.18901	0.16196	-0.57942	0.09034	0.00246
25	0.23512	-0.09972	-0.01791	-0.03136	0.04284	0.20076	0.28881	-0.56213	0.06150	0.01465
26	0.12207	-0.11508	0.00492	-0.03647	0.11867	0.16224	0.31561	-0.57118	0.08421	-0.00251
27	0.03150	0.05426	-0.02420	0.10510	0.41584	0.09957	0.08962	-0.36467	-0.02243	-0.00563
28	0.28521	0.05147	-0.02222	-0.02786	0.11410	0.08401	0.11051	-0.76134	0.03050	-0.00210
29	0.11599	0.13093	-0.05031	0.11042	0.33374	0.06540	0.00111	-0.59414	-0.04694	-0.03712
30	0.07749	0.05116	-0.01597	0.06637	0.22133	0.10640	0.17308	-0.66085	0.02169	-0.02980
31	0.28575	0.11250	-0.04776	0.01885	0.03304	0.11270	0.07610	-0.75933	-0.00768	-0.00051
32	0.20926	0.09796	0.00823	0.00639	0.01485	0.08375	0.15544	-0.65773	-0.04258	-0.00017
23	0.05325	0.00374	-0.00963	0.07381	0.29507	0.19714	0.47481	-0.01839	0.04164	-0.04967
34	-0.05679	-0.08247	-0.03683	0.01998	0.29651	0.12739	0.52216	-0.07677	0.11179	-0.05139
35	-0.03577	0.07534	0.00350	0.01578	0.11363	0.12712	0.55044	-0.03965	0.05581	-0.02955
36	-0.02641	0.01009	0.08588	0.05137	0.01926	0.00573	0.07190	0.07296	-0.03656	-0.01770
37	0.03168	0.00356	0.04238	0.01124	-0.00420	0.13756	0.27441	0.06615	0.01052	-0.01391
38	0.11101	0.03109	-0.02133	-0.02610	0.07164	0.13353	0.68932	-0.27852	0.03649	-0.00028
39	0.02713	0.01081	0.01560	0.01309	0.04942	0.15402	0.49331	0.05063	0.01350	0.00194
40	0.10931	-0.03075	-0.00827	-0.02090	-0.07940	0.11121	0.61098	-0.23165	0.01132	0.01027
41	0.05320	-0.00621	0.02709	-0.00908	0.04092	0.09540	0.55542	-0.09857	0.02118	0.00671
42	0.07861	0.03713	-0.00394	-0.01234	0.03428	0.09537	0.68276	-0.14773	0.00639	0.02281
43	0.13591	0.00456	0.19281	0.06926	-0.02541	0.07625	0.31589	-0.10722	-0.07047	0.00930
44	0.05877	0.04685	0.11368	0.05410	0.05262	0.12947	0.19644	0.02545	-0.01016	-0.00718
45	0.57058	-0.04420	0.00693	-0.01965	-0.07479	-0.03834	0.23025	-0.19632	0.03787	0.00487
46	0.17202	0.09545	0.02675	0.03824	0.01781	0.16063	0.32154	-0.13447	0.05556	-0.02150
47	0.21059	0.15496	0.09320	0.05494	-0.01749	0.04399	0.10784	-0.24879	0.04247	0.00061
48	0.07283	0.22139	0.10570	0.01947	0.07542	0.10178	0.15030	-0.16414	0.05052	-0.02330
49	0.21466	0.18226	0.10912	0.07592	0.01876	0.02143	0.19551	-0.23939	0.02062	-0.00310
50	-0.04742	0.00941	-0.00265	0.79001	0.00677	0.01709	-0.01635	0.02898	0.04813	-0.01298
51	-0.01746	0.01210	-0.00517	0.81343	0.00337	0.03902	-0.01021	0.01457	0.03633	-0.01025
52	-0.00169	0.04520	-0.02132	0.71170	0.02954	0.04454	-0.06404	-0.06471	0.01579	-0.01925
53	-0.02341	0.02435	0.02439	0.76509	-0.02467	0.05662	-0.03545	-0.05208	0.00404	0.00370
54	0.10939	-0.00286	0.03614	0.26497	-0.00802	0.00022	0.06408	0.32477	-0.34664	0.02533
55	0.06573	0.00773	0.03645	0.73148	-0.02823	0.07840	0.04138	0.02166	-0.05883	0.01207
56	-0.00315	0.03577	0.00444	0.77987	-0.00873	0.04983	0.02564	-0.03402	-0.10134	0.00240
57	0.04864	0.12184	-0.02615	0.62151	0.00877	-0.02074	-0.03350	-0.03418	-0.03721	-0.01975
58	0.02080	0.03596	0.03763	0.62789	-0.02270	0.00655	0.00165	-0.04836	0.01616	-0.00534
59	0.02357	0.07444	0.02461	0.66209	-0.01653	-0.01648	0.04208	-0.01786	-0.03411	-0.00639
60	0.01492	0.08979	-0.00005	0.65373	0.00384	-0.04703	0.03541	-0.02871	-0.01727	-0.01548

G (1) (continued)

61	-0.03987	0.00735	0.03473	-0.04867	0.79593	-0.04296	0.10085	-0.02607	-0.01664	0.01854
62	-0.01114	0.01688	0.01106	-0.01714	0.74419	-0.01696	0.14024	-0.16263	-0.04072	-0.00901
63	-0.01554	0.02295	-0.00903	0.00382	0.71493	-0.03781	-0.00477	-0.06948	-0.09766	0.08645
64	-0.01239	0.00046	0.00221	0.00257	0.04653	-0.01283	-0.03836	0.00456	-0.07009	0.89896
65	-0.00467	-0.01344	0.03167	-0.01631	0.26845	-0.02181	0.04224	0.04707	-0.05599	0.55712
66	-0.01019	0.01506	-0.00119	-0.00245	0.70629	-0.02922	0.03148	-0.22237	-0.06153	0.00219
67	-0.01072	0.00128	-0.00987	-0.00795	-0.00243	-0.01190	-0.02948	0.00623	-0.02147	0.39758
68	-0.01187	-0.02983	0.00780	-0.02646	0.53197	-0.05047	0.03677	-0.04117	-0.09774	0.27694
69	-0.03631	-0.01644	0.62315	0.05754	0.02168	-0.02875	-0.01709	0.00871	-0.07789	0.00898
70	-0.02629	-0.01598	0.75150	0.03538	0.01523	-0.00736	-0.00617	0.01951	-0.11529	0.00126
71	-0.02024	0.04806	0.61167	0.09005	0.00136	-0.00761	0.01148	0.02411	-0.05041	-0.00494
72	-0.00894	-0.05921	0.74111	0.03839	-0.00867	-0.00198	-0.02994	0.00821	-0.20665	0.01715
73	0.02696	0.04568	0.74080	-0.01970	-0.03197	-0.01457	0.05053	0.01158	-0.01786	-0.00338
74	-0.03283	0.00882	0.32548	0.07403	0.01985	-0.02863	-0.00575	0.04329	-0.00360	-0.00548
75	0.02807	0.06584	0.78291	-0.00380	0.00038	-0.01659	-0.01423	-0.00574	0.00152	0.00710
76	0.05042	0.05240	0.79327	0.00425	-0.02335	-0.02355	0.00746	0.00468	-0.02501	-0.00114
77	0.00061	0.00952	0.61219	-0.00217	0.01091	-0.01065	0.01752	0.01350	-0.20954	0.00572
78	-0.01565	0.67161	0.76387	-0.00131	0.01477	-0.04001	0.00896	0.02664	-0.07175	0.00242
79	0.16649	0.55627	0.19796	0.10827	0.02912	-0.02249	0.00237	-0.20330	-0.21202	0.03159
80	-0.01711	0.41607	-0.02484	-0.01001	0.00788	-0.04232	-0.07045	0.04431	-0.05649	0.00364
81	0.01315	0.24849	-0.03781	-0.02494	0.05692	-0.03278	-0.04159	0.02420	-0.23918	-0.01052
82	-0.00568	0.25411	-0.04470	-0.00971	0.09079	-0.05575	-0.02387	0.01743	-0.34776	-0.02844
83	-0.00456	0.39808	-0.00880	-0.01501	0.04048	-0.09272	-0.05972	0.04377	-0.02172	-0.03808
84	0.14763	0.72977	0.07727	0.09468	0.01263	0.04103	0.06154	-0.22771	-0.07191	0.02412
85	0.19268	0.66795	0.08335	0.13648	0.01496	0.04460	0.07235	-0.23368	-0.09104	0.00530
86	0.07159	0.75061	0.02023	0.03161	-0.01250	0.00696	-0.00267	-0.10038	0.06635	-0.01877
87	0.11979	0.68815	0.00816	0.10040	-0.02768	0.02193	0.06059	-0.06509	-0.10706	-0.01709
88	0.06381	0.71724	0.06857	0.02057	0.01943	-0.02351	0.01681	-0.02066	-0.03105	0.00037
89	0.26043	0.25526	0.22332	0.14829	0.17510	0.05694	0.05236	-0.50235	-0.09047	-0.01367
90	0.24560	0.28108	0.07276	0.00968	-0.00026	0.03704	-0.00938	-0.13313	-0.04114	0.10478
91	0.02363	0.52006	0.12418	0.02720	0.07709	-0.04324	-0.01483	-0.02213	-0.35969	0.01926
92	0.13510	0.52121	0.03988	0.05113	-0.01174	0.04105	-0.04965	-0.04659	-0.09961	0.00528
93	-0.06301	0.35795	-0.07039	-0.01742	0.05478	-0.09148	0.01259	0.13182	-0.06350	-0.00556
94	-0.02993	0.24696	-0.04339	0.00077	0.26568	-0.09908	0.03708	0.03231	-0.00488	-0.02539
95	-0.06629	0.20843	-0.04954	-0.02805	0.37416	-0.06635	0.01920	0.01683	-0.15433	-0.00327
96	-0.05480	0.38821	-0.02142	-0.04480	0.14144	-0.10482	0.00335	0.07692	-0.23979	0.00341
97	-0.06190	0.73762	-0.07554	-0.05044	0.00872	-0.09559	-0.04350	0.00449	-0.02199	-0.02317
98	0.01203	0.59587	-0.05074	0.00363	0.02065	-0.02834	0.03192	0.00692	-0.18998	-0.00904
99	0.02476	0.65370	-0.01308	0.00385	0.05251	-0.04725	-0.01326	-0.09503	-0.23532	-0.02016
100	-0.02908	0.50452	-0.04579	0.07159	0.03267	-0.07328	0.01014	-0.02953	-0.21795	0.02016
101	-0.01033	0.00258	0.61900	0.00090	0.09200	-0.02604	0.01405	-0.01211	-0.31053	0.01125
102	-0.05992	0.06662	0.13891	-0.04994	0.19310	-0.07495	0.02726	0.05392	-0.27078	0.03077
103	-0.02218	-0.00319	0.14807	0.10086	0.04833	0.00216	0.00069	0.01061	0.02386	0.00079
104	0.08571	0.13102	0.13899	0.04364	0.06553	0.01592	0.00992	-0.05569	-0.44500	0.10033
105	-0.02493	0.00438	0.15919	0.04908	-0.00958	-0.01112	-0.00602	0.01898	0.00207	-0.00428
106	0.02180	0.22868	0.07009	-0.00397	0.03671	-0.04324	-0.03488	-0.02029	-0.56963	-0.00854
107	-0.02589	0.17400	0.17309	-0.04337	0.18837	-0.05755	-0.02391	0.01640	-0.54606	0.05974
108	-0.03023	-0.06510	0.02550	0.02903	0.00155	-0.02104	-0.04363	0.00614	-0.46970	0.00389
109	0.04448	-0.07366	0.23657	0.22324	-0.07622	0.02747	0.00849	0.00877	-0.43302	-0.03016
110	-0.01698	0.02454	0.01847	0.11753	0.06937	-0.01250	-0.05735	-0.01671	-0.45396	-0.02636
111	-0.00533	0.13184	0.04875	0.02538	0.12441	-0.07281	-0.05443	-0.02374	-0.62820	0.09402
112	-0.01490	0.31396	0.29960	-0.06735	-0.03444	-0.06871	-0.02898	0.03623	-0.53662	0.01605
113	-0.05728	0.24616	0.03695	-0.03019	0.23267	-0.08846	-0.00767	0.02013	-0.53886	0.04036
114	-0.02718	0.05073	0.14664	0.00876	-0.06116	-0.06499	[illegible].01513	0.01830	-0.54788	0.03961
115	0.00286	0.30622	0.22970	-0.02622	-0.06388	-0.05833	[illegible].00619	0.03610	-0.48418	-0.02268

	FACTOR									
	11	12	13	14	15	16	17	18	19	20
VARIABLE										
1	-0.01801	0.02246	-0.05709	0.01439	0.01190	-0.01839	-0.01663	0.05910	0.00297	-0.01825
2	-0.02005	-0.02398	-0.03697	0.01646	0.02770	0.08521	0.00181	0.05738	-0.01333	-0.04108
3	-0.01483	0.02123	-0.06530	-0.00042	0.02404	-0.00664	0.05961	0.03364	0.00629	0.07811
4	-0.01332	0.02722	-0.04425	-0.00162	-0.00768	-0.01048	0.04213	0.00826	0.00082	0.06810
5	0.00288	0.00664	-0.05475	0.00858	0.06868	0.06983	-0.10220	0.06973	-0.03599	-0.05940
6	-0.01540	-0.00226	0.03204	-0.04642	-0.03175	-0.00804	0.08016	0.01039	-0.00964	0.05374

G (1) (continued)

7	-0.02942	-0.03411	0.01786	-0.02799	0.02983	0.06325	0.03502	0.01681	0.01057	-0.06544
8	-0.02271	-0.03147	0.32351	-0.00051	-0.04689	0.02518	0.02163	0.04815	-0.01323	0.11427
9	-0.06866	-0.02748	0.13357	0.05957	-0.09345	0.07912	-0.19549	0.22653	-0.03335	-0.02956
10	-0.05595	-0.02236	0.16204	-0.01196	-0.14356	0.01956	-0.06993	0.21260	0.00590	0.09199
11	0.01813	-0.02217	0.30995	-0.00906	-0.04716	0.00849	0.01732	0.12936	0.03290	0.03932
12	0.05373	-0.02420	0.42149	-0.01670	-0.08492	0.01520	0.01608	0.18176	0.01721	-0.02681
13	-0.00922	-0.00993	-0.13410	0.03044	-0.00224	0.00544	-0.13495	0.04840	-0.04263	0.04032
14	-0.01078	0.02116	-0.17099	0.00796	0.04113	0.00268	0.04166	0.03587	-0.02482	0.09238
15	-0.00493	-0.01120	-0.09708	-0.02172	0.01458	-0.03967	0.05706	0.02596	-0.00623	0.07911
16	-0.01978	0.01734	-0.15393	-0.00390	0.04421	0.00545	0.02838	0.03704	-0.02347	0.11342
17	-0.02952	-0.02412	-0.15422	0.05266	0.01317	0.11004	-0.28300	0.04181	-0.06010	-0.02342
18	0.02782	-0.01610	0.17953	-0.01373	0.00137	0.02402	0.06399	0.04143	0.05407	-0.00354
19	0.05506	-0.01260	0.16878	-0.01131	-0.01752	0.04388	0.01142	0.05974	0.05010	-0.08657
20	-0.02082	-0.01671	0.00993	0.00953	-0.04200	0.09740	-0.25568	0.03059	-0.03761	-0.06982
21	-0.02904	-0.02902	0.07917	-0.03250	-0.08057	0.00293	0.00562	0.08448	0.01219	0.02985
22	0.04885	-0.02130	0.22780	-0.02563	0.01150	0.05676	0.04740	0.07732	0.04213	-0.05872
23	0.04285	-0.02346	0.27534	-0.04210	-0.02529	0.01225	0.09026	0.13955	0.03097	-0.03131
24	-0.02222	-0.01454	-0.30572	-0.03265	-0.00164	-0.02497	0.07019	0.00642	0.02106	-0.02356
25	0.00010	0.00723	-0.30837	-0.02855	-0.03406	-0.05100	0.03676	-0.00160	0.03965	-0.05868
26	-0.03521	-0.00702	-0.40429	-0.06710	-0.03317	0.02943	0.00252	-0.03671	0.02620	-0.07831
27	0.01983	0.00369	-0.12929	0.08544	0.12569	-0.09351	-0.01782	0.05014	0.01933	0.00090
28	-0.03537	-0.01251	-0.03652	-0.03058	-0.00379	0.05101	0.03071	0.04628	-0.01366	0.07432
29	-0.00888	0.00976	0.04559	0.03279	0.08597	0.08069	-0.01667	0.03455	-0.06521	-0.01825
30	-0.05128	0.00631	-0.06461	-0.03793	-0.02499	0.06927	-0.11226	0.03664	-0.00335	0.06032
31	0.00619	0.01225	0.02759	0.01210	0.04179	0.00479	0.04126	0.14145	0.02782	-0.04290
32	0.02985	-0.02826	0.18656	-0.02205	0.01062	-0.01210	0.01409	0.18559	-0.00210	-0.04595
33	-0.10426	-0.00414	-0.19063	0.29176	0.08036	0.02492	0.03245	0.14019	0.02355	-0.09683
34	-0.12982	-0.05548	-0.17002	0.11843	0.03593	0.11637	-0.02831	0.03398	0.03194	-0.09751
35	-0.04239	-0.03128	-0.03984	0.16567	0.11524	-0.02888	-0.05252	0.22854	0.02973	-0.00434
36	-0.03624	-0.03494	-0.00287	0.72854	0.03886	-0.15450	-0.01166	0.11339	-0.03192	0.01597
37	-0.04388	0.00755	-0.00746	0.16344	-0.05375	0.09513	-0.01483	0.41184	-0.06188	0.03760
38	-0.01670	0.03170	-0.03849	-0.05603	-0.03454	-0.07719	0.03566	0.03582	0.01929	0.01699
39	-0.05011	-0.00444	-0.03904	0.16517	0.00491	0.11910	-0.03463	0.25101	-0.00904	-0.04717
40	0.01854	-0.00605	0.05990	-0.07728	-0.03629	-0.03446	0.02894	0.04577	-0.03345	0.06143
41	0.01651	0.07257	0.02677	-0.11255	-0.06641	-0.06542	-0.01444	0.10741	0.02452	-0.00357
42	0.01728	0.02695	0.03596	-0.04261	-0.01335	-0.01822	0.02831	0.11460	-0.02561	0.06981
43	-0.00209	0.01344	-0.00435	0.01975	-0.07848	-0.07313	-0.01577	0.40283	-0.01178	0.00189
44	-0.02120	0.05654	-0.02047	-0.04286	-0.06609	0.02375	0.00852	0.62143	-0.03869	0.05387
45	0.04824	0.01815	-0.02730	-0.01517	0.01232	-0.10388	0.11468	0.14571	0.01950	-0.02205
46	-0.10623	-0.04398	-0.01203	0.13607	-0.00408	0.11417	-0.10442	0.50764	-0.00933	0.06794
47	0.07770	0.00341	0.01967	-0.02339	-0.02739	0.04436	0.02624	0.67143	0.03635	-0.00960
48	0.04589	0.01296	0.00430	0.14930	0.12523	-0.10091	-0.01495	0.45217	0.06540	-0.08353
49	0.03385	-0.00239	0.12133	-0.00726	-0.02334	0.04058	0.03286	0.64141	-0.01543	-0.02295
50	0.00123	0.04268	-0.01579	0.01092	0.22420	0.00749	0.17366	0.00263	0.03683	0.00568
51	-0.00686	0.01543	-0.01088	0.01642	0.25286	-0.00221	0.21552	-0.01012	0.02220	0.02489
52	-0.03578	0.01177	0.02074	0.02679	0.06076	0.07229	0.06117	-0.01526	-0.00523	-0.02377
53	-0.00829	0.07437	-0.00787	0.07956	-0.26487	-0.00187	0.03600	0.03574	0.02312	0.04271
54	0.00528	-0.02078	-0.02513	-0.03745	-0.01040	-0.04227	-0.16794	0.02087	0.00112	0.04363
55	-0.01874	0.05772	0.00932	0.02262	0.04816	-0.07341	-0.09993	0.02841	0.00646	0.00507
56	0.01030	0.08146	-0.02099	0.00330	0.04396	-0.02727	-0.13230	-0.02275	-0.02270	-0.02603
57	-0.05375	-0.04081	0.03578	-0.03675	-0.22928	0.07952	-0.22604	0.00930	-0.05377	-0.04227
58	0.02749	-0.02141	0.01071	0.04350	-0.59690	0.04665	0.02153	0.17063	0.01996	0.04108
59	0.05116	-0.01668	0.00767	-0.02958	-0.53152	0.01796	0.00255	0.12057	-0.01739	0.01485
60	0.05833	0.01715	0.02308	0.02597	-0.45564	0.06207	0.01080	0.06090	-0.02257	-0.01224
61	0.01741	-0.00979	-0.02593	0.02819	-0.02541	-0.15559	-0.00729	-0.03621	0.06115	0.02407
62	-0.00205	-0.03327	-0.02554	0.01182	-0.00146	0.00104	0.00184	0.01329	0.04245	-0.02661
63	0.03529	0.02543	0.03408	0.07790	0.01507	-0.19824	0.01932	0.03562	0.01876	0.02903
64	-0.01645	-0.01103	-0.01059	0.00563	0.01341	-0.05542	-0.01199	-0.01272	-0.02964	-0.00040
65	-0.00638	0.01550	0.02231	-0.04615	-0.01780	0.05204	0.00962	-0.02108	0.12232	0.02739
66	0.03823	0.00707	0.01390	-0.06448	-0.03598	0.03193	-0.01965	0.03686	-0.05425	-0.01489
67	-0.00441	-0.01029	-0.01460	0.01494	0.01314	0.00769	-0.00288	-0.00506	-0.02725	-0.02145
68	0.05533	0.02642	0.04273	-0.05022	-0.02962	0.04146	0.01778	0.01549	0.07730	0.01620
69	0.01234	0.36213	0.06099	0.31099	-0.02990	-0.01668	0.06222	-0.05981	0.09486	0.02107
70	-0.02245	0.37105	0.03259	0.06433	0.02202	0.02990	0.01813	-0.02205	0.11463	-0.01592
71	-0.00916	0.59597	-0.00725	0.07833	-0.06347	0.01010	0.04599	0.00393	0.00611	-0.00076
72	-0.03207	0.26247	0.03220	-0.00019	0.04632	0.00954	-0.06447	-0.01444	0.12571	0.00634

G (1) (continued)

73	-0.03409	-0.03506	-0.06636	-0.03737	0.00892	0.02912	-0.03979	0.12777	-0.00534	0.03415
74	-0.01806	0.12664	-0.02976	0.65285	-0.09203	-0.07996	0.02740	0.04632	-0.02325	0.00925
75	0.01135	-0.01463	-0.04019	-0.04419	-0.05556	0.02885	0.00331	0.11634	-0.14270	-0.00807
76	-0.00271	-0.06001	0.00735	0.05595	-0.01039	-0.00389	-0.02768	0.15408	-0.04063	0.02478
77	0.00172	0.01473	0.02654	0.00432	0.04056	0.01959	-0.03437	0.03677	0.09313	-0.01029
78	0.01799	-0.03565	-0.00497	0.28289	-0.12364	0.00538	0.04658	0.08274	-0.03000	-0.01572
79	0.27386	-0.01198	0.04961	0.01364	-0.05666	0.06005	0.04146	0.14382	-0.03350	0.25206
80	0.63609	0.00646	0.00506	0.00395	-0.01613	-0.06851	-0.09975	-0.00358	0.08867	-0.02555
81	0.80441	-0.00593	-0.00936	-0.02143	-0.00613	0.06239	0.10033	-0.05504	-0.06652	0.01092
82	0.68374	0.00454	0.01431	-0.04356	-0.02596	0.04301	0.11439	-0.02008	-0.10797	0.05424
83	0.58307	0.01566	0.00172	-0.02779	0.01578	-0.06411	-0.10156	0.01374	0.13496	-0.04814
84	0.02431	-0.02629	0.03004	0.05749	-0.03973	0.04676	-0.01062	0.10142	0.00070	0.41199
85	0.03239	-0.04254	0.04674	0.02522	-0.06407	0.03483	-0.01673	0.13712	-0.03553	0.33114
86	0.06812	-0.00477	0.00646	0.04018	-0.01035	-0.03439	-0.17562	0.09825	0.07578	0.30195
87	0.11923	0.00924	0.07245	-0.01213	-0.10018	0.04950	-0.02733	0.15593	-0.03229	-0.01332
88	0.10494	0.02155	0.03248	0.06241	-0.03366	-0.10312	-0.11420	0.15939	0.13579	0.01177
89	0.02397	-0.03091	0.10050	-0.06340	-0.13340	0.17170	-0.07744	0.04948	-0.07250	0.10370
90	0.32357	-0.00933	0.07422	-0.04646	-0.03465	0.11644	-0.15704	0.15975	-0.00865	0.03305
91	0.22393	0.05227	-0.00490	0.04726	0.02436	-0.29920	-0.10255	0.06707	0.12643	-0.00559
92	0.22679	-0.05609	-0.00182	0.02501	0.00350	-0.10283	-0.24875	0.08595	0.04399	-0.02247
93	-0.03347	0.05291	-0.00038	0.07489	0.01903	-0.52444	-0.01587	-0.09753	0.00756	0.02139
94	-0.05583	-0.02549	-0.01716	0.25573	0.05558	-0.51973	0.00106	-0.02352	0.07217	-0.01245
95	0.04720	0.02252	0.00254	0.02646	-0.01478	-0.41929	0.06403	-0.04755	-0.09351	-0.02588
96	0.01520	0.00887	0.00469	0.09125	-0.00574	-0.60397	-0.03209	-0.04044	0.01187	-0.02458
97	0.07475	0.03902	-0.02443	-0.01673	0.08382	-0.22297	0.06346	-0.04475	0.05001	-0.14846
98	0.04367	0.00200	-0.00457	-0.02776	0.00028	-0.06383	0.23572	-0.04098	-0.12090	-0.21304
99	0.13479	-0.00277	0.02309	-0.05499	0.04224	-0.09804	0.20230	0.05411	-0.04907	-0.20534
100	0.05325	0.03301	-0.02152	-0.06582	0.02165	-0.17300	0.17119	-0.07221	-0.11645	-0.14641
101	-0.00345	-0.05912	-0.00733	-0.08906	0.01148	-0.03337	-0.06603	-0.02462	0.36230	0.01201
102	0.00260	-0.00046	-0.00128	-0.05831	-0.02010	-0.12115	0.00423	-0.07639	0.42850	0.01259
103	0.01110	0.83720	-0.00855	0.01893	-0.00015	-0.03009	-0.00175	0.01255	0.00934	-0.01528
104	0.04357	0.04152	-0.03567	-0.03530	0.04979	0.10715	0.02383	0.03764	0.39554	-0.01704
105	0.00114	0.70725	-0.00606	-0.00263	0.02178	-0.00820	-0.00060	0.03834	-0.02465	0.00584
106	0.11395	-0.01852	-0.00409	0.02970	0.02068	0.08395	0.13963	0.02377	0.17373	-0.01090
107	-0.02425	0.00195	-0.00194	0.09887	0.02402	-0.30013	-0.03030	-0.00269	0.23413	0.05058
108	0.09006	0.04286	0.03205	-0.01706	0.04354	-0.10263	-0.17913	-0.02042	-0.10285	0.02038
109	0.03276	-0.04560	0.05242	-0.10537	0.07764	-0.04511	-0.21830	0.00416	-0.03763	0.00482
110	-0.06467	0.02195	0.00944	0.05005	-0.12093	-0.08696	-0.04053	0.06067	-0.04283	0.00762
111	0.09175	-0.01645	0.02472	0.04925	-0.01060	-0.01304	0.10439	-0.01116	0.05731	0.03674
112	0.11033	-0.04583	-0.04322	-0.03256	0.02429	0.07280	0.10596	-0.07050	0.23173	-0.03444
113	0.02150	-0.00163	-0.02014	0.13051	-0.02766	-0.19150	0.11417	-0.05416	[illegible]	-0.00837
114	0.12863	0.00563	0.02111	-0.07001	0.04950	0.03618	-0.12725	-0.05424	[illegible]	0.00405
115	0.07914	-0.06581	-0.02529	-0.08945	-0.08425	0.06463	0.09914	-0.03561	-0.04314	-0.09546

G (2)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9	10
1	0.09925	0.63688	0.02362	0.01620	-0.07103	0.04067	-0.05169	0.34568	-0.03246	-0.01496
2	0.13667	0.70927	0.10895	0.03924	-0.09496	0.00807	0.00827	0.36919	0.04774	-0.06991
3	0.05014	0.57260	0.01696	-0.08697	0.11535	0.03020	-0.08050	0.09270	-0.08171	-0.00987
4	0.09822	0.75571	0.10068	-0.00117	0.22353	-0.03786	0.04648	-0.16557	0.00607	-0.04643
5	0.10715	0.67364	0.20279	-0.01270	-0.04080	-0.01051	0.06207	0.04345	0.01459	-0.07191
6	0.13827	0.68454	0.11379	0.09628	0.10207	-0.02000	0.03619	-0.29441	0.34152	0.01999
7	0.14733	0.67562	0.20327	0.01972	0.08403	0.00758	0.04774	-0.36165	0.18238	-0.06003
8	0.29264	0.43469	0.27711	-0.01398	0.55285	0.01406	0.07875	-0.12570	-0.01567	-0.03293
9	-0.02025	0.55750	0.09918	0.05966	0.11703	-0.00125	0.00312	-0.12660	0.12423	0.11014
10	0.18657	0.16044	-0.09941	0.03779	0.69290	0.02954	-0.06636	0.00247	-0.01435	0.00572
11	0.24157	-0.02576	0.13565	0.72602	0.06134	0.17566	0.07485	-0.00095	-0.00502	-0.00828
12	0.28264	0.17297	0.72424	0.24787	-0.02641	-0.15987	-0.01011	-0.06913	0.10977	0.05751
13	0.21947	0.10614	0.65602	0.02031	0.06323	0.30919	-0.00734	0.10387	0.04091	-0.07023
14	0.17924	0.17952	0.20126	0.36818	-0.06494	-0.00498	-0.03854	-0.05597	0.55049	-0.01059
15	0.21753	0.08713	0.47738	0.38263	0.00728	-0.15164	-0.11136	-0.23327	0.23132	-0.06875
16	0.18971	0.19283	0.83973	0.08593	0.01292	-0.01465	0.00094	-0.07236	-0.02298	0.04143
17	0.27262	0.15439	0.79272	0.14332	0.00402	0.00413	0.05367	-0.00713	0.05865	-0.05530
18	0.49432	-0.00473	0.09993	0.21521	0.12247	0.47467	-0.13273	-0.02371	0.02985	-0.04452
19	0.14653	0.10212	0.73865	-0.05919	0.05575	0.29592	-0.01842	0.03689	0.07822	-0.05292
20	0.12262	-0.01971	0.19603	0.70385	-0.01956	-0.01734	-0.03963	0.03252	0.21234	-0.00063
21	0.26610	0.09255	0.72364	0.26963	0.00062	-0.03559	-0.02163	-0.00795	0.09232	-0.00031
22	0.55438	0.10591	0.12221	0.36511	0.04480	0.10657	-0.11804	-0.05491	0.26892	-0.04702
23	0.64597	0.20233	0.36806	0.16014	0.03537	-0.09157	0.00394	-0.03512	0.10953	-0.38146
24	0.70697	0.19702	0.31199	0.06664	0.03352	-0.05544	0.05511	0.00721	0.00971	-0.43762
25	0.63714	0.10034	0.12870	0.15805	0.05880	0.03853	0.03963	0.16224	0.39327	-0.05604
26	0.50817	0.33510	0.20826	0.19166	-0.05784	0.02951	0.03510	-0.02674	0.38057	0.00428
27	0.66648	0.22203	0.12784	0.15387	0.07343	-0.03181	-0.09734	0.18058	0.25474	0.06663
28	0.61382	0.14489	0.47966	0.09832	-0.01064	0.07178	0.12380	0.04202	0.01578	-0.10241
29	0.57083	0.12033	0.25921	0.09721	0.01108	-0.05231	0.01533	-0.24284	0.19743	-0.14482
30	0.58846	0.06766	0.20280	0.00899	0.45356	0.27741	0.06837	0.00088	-0.00849	-0.01345
31	0.72593	0.13290	0.23733	0.11655	0.26613	0.09506	0.11703	-0.04120	0.00464	0.13456
32	0.77638	0.03569	0.26592	0.17852	0.12235	0.18549	0.01885	-0.02232	-0.07053	0.14064
33	0.73721	0.11220	0.34105	0.07966	0.25842	0.18000	0.14095	-0.00169	-0.01962	0.03722
34	0.76089	0.15824	0.31454	0.08314	0.10083	0.02191	0.04418	-0.08752	-0.01577	-0.15239
35	0.49433	-0.01052	0.14913	0.18891	0.06914	0.53293	0.03094	0.03592	-0.00838	0.09386
36	0.57838	-0.03325	0.16630	0.51498	0.05282	0.38404	-0.06911	-0.02218	-0.05885	0.00680
37	0.65288	-0.07336	-0.01027	0.05809	0.11326	0.06755	-0.46535	0.06352	0.04841	0.01448
38	0.65630	0.00805	0.08025	0.06026	-0.00629	0.08765	-0.31752	-0.03212	0.04771	0.04819

G (3)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9	10
1	0.22316	0.23375	0.14308	0.17119	0.02448	0.22515	-0.02480	-0.02561	0.07049	-0.01580
2	0.06019	0.17511	0.10599	0.06641	-0.02764	-0.00569	0.39803	-0.00017	0.01748	-0.02011
3	0.02190	0.12516	0.14621	-0.00787	0.03251	-0.00512	0.09455	0.03641	0.02916	-0.00187
4	0.18747	0.00304	-0.01133	0.07965	-0.00292	0.05200	-0.03043	-0.01109	0.17508	-0.01684
5	0.03147	-0.04428	0.00149	0.04341	0.00359	0.08208	0.07698	0.03356	-0.00140	-0.01535
6	0.19668	0.02484	-0.04135	0.34862	-0.01034	0.18659	0.06978	0.06901	-0.00370	-0.02992
7	-0.05124	0.01532	0.17804	0.16340	-0.02118	0.14281	0.37664	0.02616	0.02198	0.03846
8	-0.05675	0.05367	0.17551	0.00801	0.06457	0.02537	0.00154	0.00426	0.19621	-0.00755
9	0.11638	-0.01306	-0.03240	0.04743	0.01955	0.18763	-0.00441	-0.00776	0.49709	-0.01318
10	0.06283	0.00523	-0.01003	0.03751	0.05157	0.03579	-0.01839	-0.00851	0.29438	0.04483
11	-0.07135	-0.03243	0.04107	0.01183	0.11463	0.05941	0.00017	-0.01185	0.04049	-0.01051
12	0.21194	0.00357	0.03345	0.02936	0.05442	0.14019	0.03617	-0.02634	0.16828	-0.01451
13	0.19777	0.09925	-0.04321	0.07972	-0.01835	0.06692	0.05218	-0.00479	-0.02445	-0.00972
14	0.02712	0.02303	0.16627	0.00524	0.15314	0.01036	-0.01946	0.05488	0.03021	0.01134
15	-0.01905	0.06054	0.11583	0.10477	0.05999	-0.03315	0.00858	-0.00507	0.09575	-0.02965
16	-0.03592	0.73248	0.00160	0.01071	0.04282	0.01876	-0.01063	0.06954	0.00224	-0.03006
17	-0.03717	-0.06264	0.01834	-0.00713	-0.00622	-0.00374	-0.01047	-0.00720	0.14065	0.00963
18	-0.02756	-0.01025	0.86002	0.04720	0.04714	-0.01147	0.00790	0.00302	0.03230	0.09947
19	0.11337	0.06883	0.33159	0.17132	0.04023	0.04665	0.10646	0.01861	0.09550	-0.03565
20	0.25015	0.20168	-0.00454	0.05684	0.05507	0.24596	-0.02984	-0.02453	-0.04984	-0.03251
21	0.10591	0.37642	0.02608	-0.00064	0.00623	-0.05130	0.01031	-0.03007	0.01409	0.00554
22	0.01483	0.42119	0.00412	0.01802	-0.00753	-0.00847	0.02817	-0.03023	0.02571	-0.01053
23	0.06033	0.01581	0.07643	-0.02326	0.01145	-0.04457	-0.01280	-0.01591	0.18963	0.01592
24	0.24703	-0.03484	-0.04002	0.11261	0.00651	0.07112	-0.03793	0.01382	-0.04760	0.01110
25	0.15563	-0.01165	-0.05530	0.17409	-0.03123	0.03891	-0.01615	-0.00432	-0.03510	-0.09365
26	0.07561	-0.02376	-0.01322	0.03646	-0.00719	0.04063	0.09773	0.01045	-0.00461	-0.01542
27	-0.01466	0.01515	-0.03050	0.02856	-0.01798	-0.00009	0.30788	-0.00452	0.02016	-0.01158
28	0.16279	-0.00915	-0.02647	0.12375	-0.04201	0.30509	-0.01533	0.00141	-0.07440	-0.01719
29	0.01660	0.26465	0.01112	0.03043	0.00583	-0.01502	-0.01958	0.01068	0.06232	-0.03527
30	0.10384	0.01794	0.06637	-0.02029	0.02835	0.04892	-0.01655	0.00204	0.33044	0.05172
31	0.15352	0.05584	0.00543	0.01350	-0.00847	0.13066	-0.03983	-0.01895	0.07645	0.02133
32	0.23707	0.11151	0.04946	0.24975	-0.05345	0.25565	-0.04435	-0.02993	-0.04241	-0.07623
33	0.25618	-0.01541	0.05441	0.13123	0.03027	0.15249	-0.03568	-0.03797	-0.10275	-0.02172
34	0.28289	0.00039	0.03459	0.06296	0.02982	-0.04328	0.00377	0.01026	0.16852	0.03306
35	-0.01475	0.39194	0.03728	0.02046	0.20524	0.08008	-0.02118	0.00061	-0.06119	-0.03046
36	-0.00719	0.73156	0.00193	0.03599	0.01328	0.00264	-0.01854	0.07533	-0.02742	-0.01627
37	-0.02138	0.00486	0.04389	-0.01687	-0.00834	0.01126	-0.01070	0.00594	-0.00160	0.02738
38	-0.00333	0.01680	0.72497	0.01073	0.05049	0.03596	0.00035	0.00206	-0.03991	0.09099
39	0.15584	0.14904	0.24651	0.17137	-0.02306	0.13077	0.05203	-0.01131	0.01956	-0.02821
40	0.27271	0.00335	0.07853	0.03246	0.03171	0.11192	0.03110	-0.00470	-0.00103	0.01283
41	0.05689	0.07727	-0.01570	0.20555	0.00661	0.12840	-0.00337	0.03103	-0.00421	0.02724
42	0.05769	0.37279	0.07266	0.13747	0.07679	0.02328	0.02445	0.01892	0.05667	-0.08625
43	0.01331	0.21736	0.01876	-0.04198	0.05145	0.09347	0.00649	0.02730	-0.01737	-0.00977
44	0.45602	-0.02798	0.03057	0.01334	-0.03436	0.19593	-0.02379	0.00088	0.14965	-0.03601
45	0.21443	0.00227	-0.00818	0.01407	-0.01936	-0.03641	-0.01577	-0.00760	0.50143	0.00111
46	0.28827	-0.04295	-0.01174	-0.00557	-0.00693	-0.06409	0.01106	0.01410	0.12558	-0.02200
47	0.15630	-0.03142	-0.02267	0.01456	-0.05269	-0.01458	0.01635	0.00247	-0.04268	-0.02365
48	0.40988	-0.03450	-0.01372	-0.00157	-0.01283	-0.01089	-0.05414	-0.00216	0.03957	0.03363
49	0.16295	-0.01693	-0.02514	0.01302	-0.00804	0.01214	-0.04498	-0.02104	-0.01351	0.01456
50	0.02908	-0.02031	-0.01601	0.04451	-0.00375	0.01161	-0.01129	-0.03228	0.01784	-0.01946
51	-0.01135	-0.04169	-0.03146	0.02037	0.01351	-0.05012	0.74529	0.04056	0.00512	-0.04208
52	0.12242	-0.01788	-0.01053	-0.02666	-0.01025	0.00747	0.03982	-0.01836	0.00308	0.02034
53	-0.02406	0.03834	-0.00523	-0.04101	0.01016	-0.01329	-0.02796	0.01204	0.06813	0.01679
54	0.21455	-0.03872	-0.00933	-0.02308	-0.00285	-0.03461	-0.00219	0.00575	0.59656	-0.03754
55	0.59705	-0.02518	-0.02549	0.05555	-0.00404	0.00116	0.00898	0.00196	0.00293	-0.02503
56	0.56505	-0.04048	-0.02874	0.00666	-0.01125	0.06096	-0.01086	-0.00725	0.07263	-0.01380
57	0.47904	0.00183	-0.02928	0.05457	0.00009	-0.03110	-0.01194	0.01058	0.22990	0.00625
58	0.29457	-0.01382	-0.02352	0.04754	-0.01380	-0.02635	0.01157	-0.01557	0.09646	-0.00279
59	-0.03801	-0.03692	-0.02957	-0.06407	0.18884	-0.06211	-0.03596	0.01278	0.00455	-0.02184
60	-0.01734	-0.01172	0.00629	0.02154	0.00756	-0.00627	0.13285	-0.03689	0.01120	-0.03359

G (3) (continued)

61	-0.01916	0.01173	-0.01509	0.01775	0.70455	-0.00036	-0.01817	-0.01901	-0.01519	0.01769
62	0.13577	0.04396	-0.01959	0.14636	0.05323	-0.01428	-0.01308	0.03807	0.00988	0.11943
63	0.10107	0.22861	-0.00932	0.04379	-0.03437	0.03278	-0.01998	0.28938	-0.02962	0.00501
64	-0.00509	0.62513	0.05587	0.05179	0.01979	0.00904	-0.00546	0.27363	-0.01000	0.00230
65	-0.03636	0.10225	-0.01714	0.02322	0.07439	-0.00313	-0.00111	0.18379	0.00231	-0.01542
66	-0.04563	0.26961	0.03960	-0.04445	-0.04351	0.02493	-0.03281	0.51698	-0.03379	-0.01780
67	-0.02639	0.23667	-0.00685	0.03558	-0.02679	-0.02949	-0.04388	0.21572	-0.01109	0.06862
68	-0.00761	-0.03274	-0.00226	0.01228	-0.01344	-0.00726	-0.01707	0.15040	0.02479	0.00345
69	-0.06000	-0.03602	-0.02655	0.04214	-0.02641	-0.00812	-0.01624	0.13179	0.01256	0.38955
70	-0.00410	0.29546	-0.01687	0.01322	-0.03077	-0.00066	-0.01214	0.05112	-0.02462	0.32906
71	0.00676	0.15041	-0.03729	0.07388	0.17726	0.02178	-0.03094	0.05444	0.06656	-0.03331
72	-0.02390	-0.03849	-0.00342	0.00710	-0.00276	-0.02193	-0.02423	0.07350	0.13263	0.00455
73	0.15476	0.02251	0.00678	0.25155	0.10153	0.05214	0.12967	0.29962	-0.06342	0.04507
74	0.11181	0.09486	-0.00240	-0.02041	-0.02554	-0.02894	0.11148	0.23698	0.04314	0.03071
75	0.32456	0.02422	0.06369	0.32879	0.17311	0.02519	0.01173	0.16045	0.01220	0.15150
76	0.02754	0.10368	0.02250	0.05866	-0.00572	-0.02564	0.00278	0.21384	0.06246	0.19716
77	0.11779	0.13005	0.01695	0.22045	0.16494	0.05138	-0.03039	0.50172	0.03271	0.09055
78	0.03378	0.20377	-0.02035	0.03783	0.02530	0.02493	-0.01437	0.30838	0.00958	0.01789
79	0.16562	0.17268	0.02052	0.16573	0.11749	0.05066	-0.02628	0.68548	-0.04361	0.12861
80	-0.02633	0.20124	0.00566	0.04941	-0.02229	-0.04392	0.25727	0.73665	-0.01923	0.05459
81	-0.00644	0.01074	0.07687	0.04867	0.46820	0.04587	-0.02673	0.01688	0.02420	0.05202
82	0.34025	0.08217	0.01276	0.18639	-0.01252	0.09143	0.10512	-0.06647	0.08417	0.10354
83	-0.01755	-0.04164	0.04201	0.36156	0.02394	0.00087	-0.04464	-0.01891	0.04779	0.17625
84	0.02749	-0.03722	0.14403	0.20741	0.31502	0.05043	-0.04069	0.05960	0.07107	0.36439
85	-0.02217	-0.01970	0.04249	0.05170	0.21226	0.07133	-0.06634	0.08106	0.03519	0.24441
85	0.11782	-0.03998	0.04202	0.20861	0.14682	-0.00218	-0.01104	0.07241	0.04054	0.52149
87	0.07503	-0.03018	0.06471	0.05456	0.25656	0.04653	-0.02097	0.01840	0.01721	0.18769
88	0.32523	0.13333	-0.02294	0.05709	-0.02457	0.08465	-0.00501	-0.05004	0.12874	0.20818
89	0.04026	0.00542	0.17645	-0.05573	0.12323	-0.05017	-0.04156	-0.05977	0.01183	0.19151
90	0.00535	0.02114	0.03725	0.02363	-0.02913	-0.00281	0.02467	0.06513	-0.04190	0.71370
91	0.14175	0.02709	-0.04135	0.05344	0.01459	-0.03432	0.15818	-0.02366	-0.08478	-0.05367
92	0.04431	-0.00240	-0.04412	0.07742	0.20045	-0.03002	0.10432	-0.02679	-0.00614	-0.00650
93	0.30914	-0.01321	0.00073	0.20897	0.16640	-0.00435	0.24688	0.05027	0.03155	-0.00751
94	-0.05911	0.30338	-0.00111	0.04637	-0.02930	0.03624	-0.03271	0.77734	-0.01208	0.14654
95	0.07170	0.07195	-0.04540	0.70467	-0.02929	0.02333	0.13055	0.10390	0.08194	-0.03211
96	0.09176	0.10197	-0.01472	0.71535	0.03979	-0.03112	0.07086	0.20369	0.04160	0.05613
97	0.09724	0.02177	0.03565	0.74425	0.05679	-0.01157	-0.00109	0.05591	-0.02394	0.07249
98	0.01977	0.04025	-0.04025	0.75549	-0.02120	-0.02551	-0.02236	0.04768	-0.00557	0.15819
99	0.03455	0.03142	0.01492	0.01263	-0.03192	0.21268	0.11463	0.00450	-0.03711	0.07558
100	0.11313	-0.00452	0.03160	0.36398	0.03302	0.07265	-0.00298	0.02280	-0.03335	0.11681
101	0.20176	0.03675	0.01844	0.04673	0.02731	0.32656	0.01481	-0.00862	0.03975	-0.01029
102	0.12230	-0.02045	-0.02060	0.03764	-0.03575	0.13422	0.10987	-0.04431	-0.02257	-0.03092
103	0.03152	-0.01057	-0.02254	0.00428	0.00280	0.01126	0.78229	0.01485	-0.02447	-0.01081
104	0.57814	0.02015	0.04809	0.05997	0.02519	-0.01623	0.08335	-0.01069	0.03575	0.01857
105	0.14066	-0.02359	0.00274	0.05953	-0.00251	-0.04265	-0.02990	-0.02030	0.03920	0.00298
106	0.07025	-0.01056	-0.00741	0.03798	0.03137	0.15379	0.04029	-0.05152	0.40674	-0.01348
107	-0.01117	0.12245	0.03036	0.04134	0.70760	-0.01054	-0.01170	0.00643	-0.03029	-0.04003
108	-0.02723	0.05826	0.05530	-0.04525	0.37189	-0.07671	-0.01939	0.01034	0.02473	0.02197
109	0.02717	[illegible]	0.07426	0.10472	0.06016	-0.06459	-0.30531	0.00071	0.03591	0.05541
110	-0.00242	-0.01622	0.00642	-0.04709	0.10671	-0.05778	0.02871	-0.02020	0.00892	-0.00807
111	-0.01338	0.37221	0.06160	0.12711	0.08839	0.01047	0.02146	0.07471	0.14139	-0.00127
112	-0.10115	0.56717	-0.02694	-0.04086	-0.02973	0.02086	0.03209	0.03354	0.00134	-0.07546
113	0.00550	0.74636	0.01905	0.02077	-0.02264	0.01071	0.00193	0.04803	-0.00503	0.03673
114	0.05921	-0.00550	0.13707	0.07248	0.07076	-0.10413	0.07983	-0.04701	0.03304	0.03301
115	0.06126	-0.00307	0.13459	0.17204	0.24345	-0.03445	-0.01026	0.04397	-0.06227	0.21452
116	0.07235	0.01045	0.05384	0.06304	0.10658	0.00638	-0.03094	-0.02683	0.00278	0.05588
117	0.02174	0.01323	-0.04269	0.22802	0.06268	-0.04311	0.13217	-0.03962	0.05257	0.02359
118	-0.00137	-0.00587	0.05980	0.35002	0.15420	-0.04263	-0.04997	-0.02975	-0.00660	0.16639
119	0.03354	0.03337	0.47155	-0.02946	-0.01862	-0.01796	-0.02677	0.00231	-0.05131	0.04596
120	0.02436	-0.00624	0.79892	-0.00771	0.01872	0.00778	-0.00188	0.01044	0.01572	0.05513
121	0.01963	0.02063	0.79061	-0.00589	-0.01315	0.00051	-0.03153	0.00396	-0.01161	-0.05506
122	-0.00699	0.00544	0.58772	0.00768	0.01860	0.01218	0.01898	0.00316	0.01086	-0.04208
123	-0.05777	0.01457	0.00775	0.00708	0.00419	-0.01164	-0.02036	0.03940	0.02000	-0.08202
124	-0.01865	0.74613	-0.00033	0.00646	0.01521	0.02448	-0.01238	0.04849	-0.01825	0.03266
125	0.00659	0.29934	0.23039	-0.02601	-0.00154	-0.01991	-0.01973	0.04447	-0.04122	0.11564
126	0.02841	0.03564	0.57942	-0.04324	0.00253	-0.01272	-0.02809	-0.03643	-0.04498	0.06815

G (3) (continued)

21	0.05469	0.03698	-0.07044	0.03114	-0.17372	-0.01690	-0.14643	0.03780	0.04318	-0.06399
22	0.03593	-0.03633	-0.05282	-0.01494	-0.25524	0.10617	-0.06816	0.02876	-0.00025	-0.03321
23	0.00531	-0.09063	0.07723	-0.02468	-0.01602	-0.00564	0.03088	0.07943	-0.06263	0.10343
24	0.05045	0.00836	-0.00211	0.02045	0.03260	-0.00295	-0.07767	0.03824	0.06107	-0.14398
25	-0.01740	0.04540	-0.01203	0.02221	0.02144	-0.01652	-0.13343	0.00031	0.07092	-0.12553
26	0.02524	-0.01920	-0.07075	-0.00282	-0.04916	0.02838	0.00114	0.55176	-0.01207	-0.00522
27	-0.04065	0.02016	0.00043	0.00610	-0.00724	-0.03394	-0.02234	0.47317	-0.00997	0.00164
28	-0.00510	0.03866	-0.04442	0.00123	0.02038	-0.07462	-0.12583	0.01512	0.01411	-0.15088
29	-0.01456	-0.14270	-0.00409	-0.01869	-0.05033	0.12836	-0.05259	0.00456	0.09051	-0.06231
30	0.00592	-0.04171	0.06315	-0.04311	0.04243	0.08619	0.00027	0.12222	-0.02679	0.02080
31	0.02465	-0.05029	0.07158	-0.00937	0.00864	0.00022	0.01780	0.30427	0.03143	-0.01844
32	-0.13532	0.00989	-0.03524	-0.00136	-0.01584	0.02810	-0.12124	0.05519	-0.00073	-0.01726
33	0.00273	0.06527	0.00082	0.00067	0.01051	0.06348	0.05365	0.02917	0.04639	0.04861
34	0.02247	0.03900	0.03119	-0.00760	0.02071	0.01203	-0.06276	-0.01634	-0.02142	-0.00379
35	-0.04408	0.01568	0.00428	0.02352	-0.22585	0.08505	0.03819	-0.02191	-0.06077	0.05700
36	-0.05271	0.00254	0.01560	0.01671	0.02232	-0.01424	-0.01344	0.04835	-0.02227	-0.04478
37	-0.00032	-0.00061	0.00031	0.79269	0.01364	-0.00706	-0.00523	0.00167	-0.03008	0.00073
38	-0.01138	-0.00645	-0.00556	-0.02546	0.05451	-0.01913	0.03495	-0.01178	-0.00290	-0.00182
39	0.00005	-0.01191	-0.04565	0.07873	-0.12712	0.01996	-0.19023	0.09619	-0.01769	-0.08642
40	0.10861	0.02985	0.03602	-0.02445	0.03858	0.01408	-0.44796	0.03404	-0.06714	0.04180
41	-0.05278	0.03780	0.04287	-0.03456	0.06295	0.15088	-0.30780	-0.00668	0.02180	-0.14080
42	0.07470	0.01435	-0.00022	-0.02263	-0.04721	0.00220	-0.25930	0.06473	-0.14212	0.09275
43	-0.02062	-0.11439	-0.07660	0.03508	-0.14407	-0.01186	-0.03511	0.00382	-0.02841	-0.14617
44	0.01476	-0.09766	-0.06754	0.00208	-0.17342	0.07386	-0.09802	0.05977	0.02572	0.21992
45	0.08567	0.01421	0.01010	0.05094	-0.00022	-0.03768	-0.07491	0.07634	-0.05932	0.04049
46	0.08929	-0.17023	0.02605	-0.00339	-0.04667	-0.00020	-0.04297	0.00189	-0.10456	0.00043
47	0.10549	-0.16248	0.02418	-0.00167	-0.28459	-0.02209	0.07302	-0.05413	-0.05052	0.00273
48	0.28258	0.00656	0.04169	-0.00258	-0.06407	0.00246	0.03398	0.18405	0.00485	-0.14463
49	0.11396	-0.05139	0.06655	0.00513	0.03309	0.01057	-0.14493	0.13294	-0.01096	-0.04896
50	0.40745	-0.09576	0.06362	-0.00596	-0.00657	-0.00105	-0.03807	-0.00156	-0.04321	0.02856
51	-0.00425	0.05138	-0.01305	0.00753	0.01628	-0.00625	0.01718	0.07302	0.03468	0.07167
52	0.31655	-0.00408	-0.07537	-0.02247	0.02015	-0.02726	-0.12196	0.12667	0.01695	-0.04327
53	0.02040	-0.30256	-0.01350	-0.00675	0.04527	0.00309	-0.06108	0.03025	0.01456	0.10612
54	0.01793	-0.06400	0.02122	0.01452	0.04337	-0.04658	-0.03630	0.00817	-0.01745	0.06872
55	-0.02036	0.03919	0.02746	-0.01339	0.05949	-0.00241	-0.06482	0.05128	-0.00297	-0.00615
56	0.01743	-0.06788	0.09112	-0.01662	0.01402	-0.01952	-0.01786	0.06269	-0.01857	0.04045
57	0.10175	0.03108	0.04197	-0.01952	0.00201	-0.02837	-0.07297	0.06413	-0.00334	-0.07047
58	0.11557	-0.13741	0.69213	-0.01149	0.03765	-0.02677	-0.03683	0.07008	-0.03208	-0.15414
59	0.11154	-0.22590	0.10499	-0.00646	-0.21934	0.02199	-0.12705	0.02020	-0.04245	0.15144
60	0.34968	-0.05966	-0.01344	-0.01176	0.05146	-0.03026	0.08836	-0.05950	-0.01630	-0.07795
61	-0.01797	-0.15118	0.06245	-0.01096	-0.12994	-0.02784	0.00536	-0.01242	0.02540	-0.00935
62	0.12239	-0.11924	-0.03052	0.10196	0.05908	-0.07740	-0.33837	-0.05185	0.02895	0.00919
63	0.00140	0.01647	-0.00322	-0.01132	0.03213	-0.04532	-0.00694	-0.00524	0.08678	0.16133
64	0.00540	-0.03635	-0.00922	-0.01192	-0.00369	0.01239	-0.01545	-0.00591	0.04419	0.02629
65	-0.01933	-0.03342	-0.01402	-0.00454	0.00332	-0.05089	-0.04645	-0.01522	0.01899	-0.06329
66	0.00837	0.00380	-0.03502	0.00489	0.02063	0.07193	0.03656	-0.00301	-0.09419	-0.07848
67	-0.00544	-0.02737	-0.01242	0.09032	0.01103	-0.04059	-0.03001	0.01615	-0.02966	-0.04568
68	-0.02420	0.01459	-0.00152	0.00829	-0.00152	0.00606	-0.00484	-0.00805	0.03318	0.00633
69	-0.02704	0.00459	-0.00113	0.00779	-0.00692	-0.01531	-0.01090	-0.00691	-0.00044	0.01295
70	0.02818	0.01995	-0.00591	0.09634	-0.00854	-0.01135	0.03860	0.00454	-0.03597	0.04418
71	0.05054	-0.75523	0.00959	0.00294	-0.54760	-0.05701	-0.02603	0.07687	0.03180	0.02096
72	-0.03402	-0.00935	-0.01671	0.05397	-0.01205	0.04775	0.02552	-0.01356	0.04460	-0.03561
73	-0.01537	-0.47950	0.11011	0.02904	-0.02337	0.00144	0.02225	-0.01685	-0.04447	0.07322
74	-0.05971	-0.11060	0.10571	0.01630	0.03523	-0.00942	-0.01297	0.02487	-0.04664	0.00820
75	0.01047	-0.12692	0.04736	-0.00259	-0.05542	0.00369	-0.04420	-0.01899	-0.01561	0.03556
76	0.00752	-0.00211	0.02526	0.01357	-0.01995	0.03493	-0.04732	-0.00181	-0.01117	-0.00460
77	-0.03452	-0.13359	0.02546	-0.02317	-0.05284	0.03819	0.02745	0.03989	-0.03917	-0.04033
78	0.05467	-0.17712	-0.05644	-0.00166	-0.01920	0.00209	-0.00276	0.00556	-0.06052	-0.07867
79	-0.04779	-0.02336	0.04101	-0.02655	-0.01353	0.02622	-0.00768	0.01907	-0.05715	0.00702
80	0.03533	0.04607	-0.03454	-0.02871	0.02253	0.00469	-0.00269	0.04358	0.01517	0.03754
81	0.02275	-0.01603	0.03479	0.02176	-0.24617	-0.01765	-0.03567	0.02625	-0.31747	-0.01979
82	0.03213	0.00931	0.03401	-0.00908	0.05363	0.05943	-0.09580	0.02798	-0.37496	0.02629
83	-0.04075	-0.01166	0.00678	-0.02645	0.00932	-0.00689	-0.01500	-0.01113	-0.06330	-0.03363
84	-0.02102	-0.04197	0.17550	-0.02771	-0.09877	-0.01901	-0.15328	-0.00753	-0.17421	-0.06255
85	-0.04561	0.00565	0.07318	0.10000	-0.08019	0.05113	-0.05258	0.01879	-0.18857	0.01578
86	-0.04052	-0.06999	0.01434	-0.03259	0.05843	0.02028	-0.07785	-0.01653	-0.10894	-0.09142

G (3) (continued)

87	0.08731	-0.02555	0.01466	-0.02890	0.03194	-0.00164	-0.11115	-0.00391	-0.39753	-0.02304
88	-0.06091	0.09651	0.04115	-0.02248	0.07062	0.16731	-0.07749	0.06927	-0.13471	0.02589
89	0.02060	0.06523	-0.05159	-0.03414	0.07265	-0.06687	-0.02553	0.01632	-0.15362	0.16146
90	0.04136	0.01854	-0.02890	-0.02351	-0.02681	-0.01968	-0.02572	-0.02020	0.05026	0.02182
91	0.06219	-0.51455	0.07867	-0.00173	-0.04300	-0.05032	-0.01504	-0.05694	-0.10803	-0.03678
92	0.05279	-0.03525	0.04923	-0.01089	-0.04175	-0.01212	0.01497	0.03813	0.02619	0.00239
93	0.06564	-0.13148	0.14795	0.03535	0.06548	-0.06621	0.04102	-0.01184	-0.08569	0.10049
94	0.02493	-0.01852	0.01307	-0.00438	0.00795	0.01622	-0.05403	-0.03468	0.03143	0.02219
95	0.01963	-0.02167	0.04105	0.00526	0.02551	-0.03374	-0.15349	0.04434	0.00637	0.00589
96	0.08541	-0.11653	0.04845	0.00296	-0.01228	0.03775	-0.08581	0.06476	0.04946	0.04984
97	0.01282	-0.08192	0.05197	-0.00604	0.03041	-0.05049	0.02562	0.00351	-0.11336	0.00871
98	0.02953	0.00441	0.05653	-0.01508	0.00461	0.01436	-0.00656	0.01161	-0.11719	-0.02428
99	0.13735	-0.01402	-0.03737	-0.01117	0.01576	0.07739	-0.02230	-0.08296	-0.02506	-0.16443
100	0.10623	0.06227	-0.03396	-0.00801	0.01967	0.04542	-0.11371	-0.00227	0.03645	-0.05928
101	-0.06974	0.02785	0.00123	-0.01020	-0.01090	0.24351	-0.05741	-0.04985	0.03193	-0.08430
102	0.15124	-0.05097	0.02546	-0.01974	0.03489	-0.01848	-0.19993	-0.01600	-0.02919	-0.00759
103	-0.02596	-0.06528	0.02487	0.00350	0.02401	-0.01828	-0.00957	0.06017	-0.00941	0.01641
104	0.09036	-0.08778	0.02710	-0.00272	-0.15045	0.03341	-0.00024	-0.15873	-0.00361	0.26599
105	0.16975	-0.10794	0.72662	-0.01453	-0.07101	-0.05732	-0.02042	0.02701	0.03705	-0.01714
106	0.13722	-0.04900	0.03655	-0.04493	0.03302	0.03700	0.14961	-0.00620	0.01706	0.00282
107	-0.02662	-0.05148	0.03059	-0.00384	-0.10752	0.03503	-0.00079	-0.03147	-0.05090	-0.00305
108	0.06762	-0.09918	-0.05530	-0.01496	0.13880	-0.00457	-0.14177	0.01524	-0.16303	0.08201
109	0.07512	-0.03518	-0.00058	-0.00397	0.07312	-0.02982	0.01711	0.00629	0.00390	-0.00079
110	0.08573	-0.22019	0.03149	-0.02539	-0.19928	-0.00284	-0.07554	-0.02471	-0.00661	0.07299
111	0.02564	-0.14501	0.00911	-0.01707	-0.15480	0.09237	-0.05739	0.06651	0.01483	-0.07323
112	0.09736	-0.13763	-0.04532	-0.01273	-0.15141	0.01339	-0.06103	-0.02261	-0.33374	-0.15817
113	-0.06228	-0.07151	0.05264	-0.02303	0.06167	0.08929	-0.00915	-0.00985	0.03145	-0.03677
114	0.07681	0.03350	0.03320	-0.01718	0.00844	-0.03311	-0.12542	0.01890	-0.16478	0.17479
115	0.00237	-0.17512	0.02972	-0.00791	-0.01942	0.06258	0.05038	0.01700	-0.17008	0.02955
116	-0.00127	-0.00370	-0.04037	0.03325	-0.06003	0.01600	0.00851	-0.01882	-0.49926	-0.00166
117	0.16587	-0.06209	0.05679	-0.02470	0.02380	0.08233	-0.00517	0.02463	-0.43317	0.12516
118	0.05800	-0.01921	0.05432	-0.04420	0.03738	0.05703	-0.08840	-0.01814	-0.38739	0.04967
119	-0.01591	-0.00507	-0.05649	0.22123	0.01565	0.04765	0.02967	-0.01576	0.00303	-0.07189
120	-0.02013	0.01068	-0.00489	0.03240	-0.00852	0.01025	-0.00870	-0.02218	-0.06498	-0.02029
121	-0.02653	0.01446	-0.03460	0.00612	0.00720	0.00369	-0.04574	0.00298	-0.00292	-0.05340
122	-0.00263	0.00207	0.07349	-0.07181	-0.07537	-0.01594	-0.03503	-0.02546	-0.00727	0.05158
123	-0.01828	-0.02579	0.01732	-0.03453	-0.01832	0.03128	-0.01253	0.00146	-0.01651	-0.01590
124	0.00602	0.04476	-0.02050	-0.01690	-0.00056	0.01190	0.01764	0.00253	-0.04327	0.12929
125	0.02046	-0.00064	-0.02466	0.05108	-0.04465	0.03532	-0.03023	-0.01330	0.00349	0.03847
126	-0.01482	0.06259	-0.04411	0.10219	0.02167	-0.02716	0.02438	-0.01800	0.04429	-0.01039
127	-0.01155	0.07565	-0.01305	0.00226	0.01844	0.07810	0.01674	0.00054	-0.06084	0.11584
128	-0.00361	-0.03107	0.06410	-0.01202	0.03190	-0.01459	-0.00513	-0.00665	0.08517	0.11053
129	-0.02461	-0.00910	-0.05295	-0.00568	0.01163	-0.01299	-0.03820	0.01392	-0.04343	0.24209
130	-0.01721	-0.04223	0.03206	-0.01894	-0.30648	-0.01232	0.02328	0.01696	0.02901	0.01308
131	-0.01592	-0.05470	-0.02064	-0.01544	-0.10624	-0.03544	-0.01249	-0.02817	-0.04967	-0.05886
132	0.05932	-0.10139	0.16613	-0.02276	0.03795	0.01038	-0.08548	0.06309	-0.09374	-0.12646
133	-0.03106	-0.06420	-0.01690	0.00376	-0.00795	0.12779	0.01739	0.02325	0.02306	0.29592
134	0.02791	-0.03110	0.21419	0.00029	0.05681	0.10943	-0.10960	0.06575	-0.01760	0.02446
135	0.24229	0.01577	0.25656	0.00834	0.01710	0.00963	0.04404	-0.07326	-0.10509	-0.00471
136	0.08758	-0.10836	0.08053	-0.06408	0.04261	0.14182	-0.02715	-0.00285	-0.05039	0.05213
137	0.05250	-0.02956	-0.04963	-0.01236	0.03353	0.05407	-0.08667	-0.00601	-0.08727	-0.02833
138	0.01085	0.00194	0.07487	0.01309	0.00256	-0.07923	0.04425	0.12866	-0.04576	0.13096
139	-0.00930	-0.13297	-0.00792	-0.01621	0.00512	0.00982	0.00256	0.01579	-0.05974	-0.03390
140	0.05256	-0.15729	-0.01625	-0.00561	-0.00800	-0.03067	0.11224	-0.05925	-0.10427	0.02756
141	0.02036	0.02452	0.01205	-0.01604	-0.00285	-0.01087	-0.02084	0.01939	-0.08164	0.06005
142	-0.07691	-0.04150	0.02268	-0.01322	-0.52151	-0.02200	-0.01696	0.04614	-0.04663	-0.01237
143	0.00317	-0.00957	-0.01390	-0.01323	-0.01290	0.12739	-0.04520	0.01211	-0.07612	-0.15036
144	0.02462	0.02107	0.03024	0.03356	0.00071	0.08324	0.05129	0.19027	0.04075	0.04418
145	0.00523	0.05739	0.03907	-0.01027	-0.01019	0.02672	-0.04325	0.03956	-0.05548	-0.01591
146	0.02764	-0.00746	0.02434	-0.00074	-0.02237	-0.00126	-0.05096	-0.03968	0.00646	-0.01923
147	0.15555	0.04506	-0.04169	0.00011	-0.03961	0.08944	-0.03662	0.03519	0.00904	-0.04318
148	0.17204	-0.04325	-0.01213	-0.00660	0.07219	0.00268	-0.00029	-0.02135	-0.03918	0.02973
149	0.14075	0.01733	0.00609	0.01383	0.04057	0.00113	-0.05076	0.05598	0.00878	0.04686
150	0.03402	0.00129	-0.01738	-0.01258	0.03606	-0.00753	0.01251	0.03425	0.02384	-0.06857
151	0.23242	-0.02303	0.03251	-0.00534	-0.00958	-0.03719	0.03554	-0.08692	0.03170	0.03794
152	0.05313	0.02210	0.00818	0.05687	-0.11888	-0.03542	0.00130	0.12991	-0.03121	-0.03674

G (3) (continued)

153	-0.03300	0.00704	-0.04013	-0.01148	0.02655	0.02402	-0.07678	-0.02342	-0.01770	-0.02390
154	-0.04116	-0.01276	-0.03456	0.00255	0.00061	0.09987	-0.01075	0.01438	-0.07515	0.03048
155	0.03017	0.00007	-0.02222	-0.02112	-0.02250	0.05658	0.10384	-0.02638	-0.03236	-0.03420
156	-0.00261	0.02910	-0.00797	-0.01368	0.01408	-0.00308	0.09017	0.07371	-0.14767	0.02157
157	-0.00003	0.07030	-0.00295	0.00000	-0.01205	0.07134	0.03739	0.00038	-0.02937	-0.07384
158	-0.02635	0.00272	0.01431	-0.00494	0.02582	0.65542	-0.01416	-0.00445	0.01933	0.02039
159	0.00957	-0.03773	-0.00645	-0.00644	-0.00499	0.47631	-0.00021	0.05003	-0.01797	-0.00960
160	-0.04183	0.03793	-0.04515	0.00497	-0.02657	0.56894	0.01532	0.01324	0.02848	-0.06149
161	0.01269	0.06740	-0.06502	-0.00690	0.03224	0.48591	0.00133	-0.03414	-0.09138	0.03870
162	0.03681	0.00319	0.02123	-0.00396	0.04685	0.19761	0.10139	-0.03066	-0.05186	0.10219
163	-0.00536	0.04578	0.03455	0.09772	-0.04465	0.10571	-0.05184	0.00476	-0.04062	-0.01902
164	0.02395	0.02402	0.00268	-0.02635	-0.01920	0.09056	-0.06550	-0.04198	-0.06229	-0.02856
165	0.34597	0.02279	0.05037	0.00214	-0.02139	-0.01998	0.06479	-0.05450	-0.09534	-0.04414
166	0.06916	-0.03098	-0.09292	-0.00489	0.03224	-0.02516	0.05165	0.03156	-0.05606	-0.15673
167	0.11569	-0.01686	0.02529	0.01768	0.04890	-0.06293	-0.04304	0.04810	-0.07977	0.09200

FACTOR

VARIABLE	21	22	23	24	25	26	27	28	29	30
1	0.03453	-0.16261	0.10635	-0.01379	0.05763	0.16073	0.30956	-0.00313	-0.03474	-0.07713
2	0.07497	-0.25072	0.04137	-0.11368	0.00676	0.02989	-0.00818	-0.07945	0.02512	-0.05973
3	-0.00654	-0.30924	0.02572	-0.10806	-0.06059	-0.00679	-0.02045	0.02111	-0.01999	0.12480
4	0.03803	-0.08769	0.05267	-0.06093	0.09542	0.20372	-0.04487	-0.07892	0.05707	0.01345
5	0.02116	-0.03713	-0.01468	0.03306	-0.02038	0.01803	0.05267	-0.00712	0.03301	0.01369
6	0.06445	-0.19825	0.02232	0.02450	0.03804	0.02973	0.03778	-0.12121	0.31270	0.00898
7	0.03603	-0.13832	0.03951	0.13244	0.01741	0.03868	-0.09649	-0.15088	0.04671	-0.04756
8	-0.04548	-0.42587	0.01446	-0.18694	0.02566	0.01106	-0.04268	0.04365	0.19264	0.11486
9	-0.01893	-0.23324	-0.00130	-0.12242	0.06993	0.15479	-0.03490	0.00629	0.03441	0.11432
10	-0.01236	-0.33723	0.00406	0.03232	0.05323	0.06449	-0.08115	0.03159	-0.01046	0.19267
11	-0.05017	-0.16487	0.04801	0.13886	0.01031	0.19372	-0.03250	0.04526	0.02618	0.07099
12	-0.07831	-0.33078	0.06782	0.20336	0.01421	0.27814	0.09988	0.00508	0.01138	0.06706
13	0.05452	-0.19330	0.17037	0.01367	0.02721	0.09261	0.08061	-0.12203	0.14355	0.00217
14	-0.05716	-0.01565	0.01655	0.07540	0.02517	0.03928	0.00221	-0.05364	0.04911	0.17156
15	-0.05222	-0.04943	-0.01157	-0.07456	0.08031	0.01626	-0.05940	0.03843	-0.03058	0.59710
16	0.03130	0.00535	0.02519	0.03323	0.03894	0.01901	0.02272	-0.04754	-0.02857	0.09872
17	0.01795	-0.00870	0.02969	0.00963	0.05075	-0.02452	0.01130	0.02357	-0.01991	0.03804
18	-0.00378	0.00911	0.03242	0.04434	-0.09472	0.05459	0.02389	0.01334	0.02714	-0.01315
19	0.00216	-0.35309	0.01236	-0.01844	-0.01920	0.15613	-0.04702	-0.22189	0.16450	0.21925
20	-0.02482	-0.10047	0.13253	-0.16615	0.02479	0.14187	0.36300	-0.03775	0.02370	-0.04663
21	0.02780	-0.04468	0.07942	-0.15148	-0.04976	0.08494	-0.02247	-0.01504	-0.04225	-0.02147
22	0.04327	0.01409	0.08541	-0.14404	-0.10731	0.07874	0.04662	0.02887	-0.02747	0.05538
23	0.03935	0.02831	0.02260	0.01258	-0.03833	0.54490	0.04053	-0.02661	0.05350	0.02207
24	-0.06045	-0.01001	-0.01312	0.08404	0.07667	0.45727	-0.01180	-0.06713	0.02443	0.00424
25	-0.03363	0.01987	0.01475	0.05455	0.03353	0.43915	-0.04057	-0.39961	0.13389	-0.02438
26	0.00628	-0.11705	-0.00331	0.01603	0.01517	0.03033	0.02011	-0.00079	-0.00140	0.01460
27	0.02333	-0.05853	0.02835	-0.00740	-0.01676	0.03440	0.00974	0.01131	0.02301	0.02419
28	-0.04536	-0.19653	0.02854	-0.11923	0.02173	0.20715	-0.00757	0.01382	0.43781	-0.02751
29	0.02409	-0.15561	0.05310	-0.30934	0.00458	0.11711	0.00789	0.00835	0.13097	0.05499
30	0.02200	-0.12746	-0.04415	-0.12163	-0.07569	0.48066	-0.02236	0.05165	0.02755	0.03373
31	0.01730	-0.01837	0.00737	-0.03111	-0.02026	0.08842	0.02322	0.02115	0.05826	0.02283
32	-0.01314	-0.10021	0.10697	-0.09112	0.01686	0.35630	0.28106	-0.06716	0.14655	-0.04975
33	-0.03201	-0.27836	0.03146	-0.06701	-0.00932	0.41669	0.34976	0.02343	0.05733	0.06978
34	0.01512	0.02506	-0.04310	-0.02022	-0.03555	0.65778	0.00340	0.01311	-0.00157	0.02655
35	-0.12257	-0.04548	0.02044	0.04884	-0.11373	0.14873	-0.04856	-0.02392	-0.00110	0.17712
36	-0.02147	-0.12642	0.05229	-0.02388	-0.01941	0.02384	0.05266	-0.00124	0.00335	0.01104
37	0.00250	0.00568	-0.00768	-0.03991	0.03966	0.01342	-0.00570	0.02222	-0.00236	-0.03218
38	-0.01447	-0.00199	0.00339	0.03194	-0.21322	0.05951	0.01639	-0.12052	-0.02414	0.04159
39	-0.02412	-0.16770	0.02247	-0.14228	-0.12671	0.43651	-0.01924	-0.28990	0.19603	0.05716
40	-0.05772	-0.05381	0.07521	-0.05734	-0.01587	0.08864	-0.02018	-0.14679	0.18303	0.12359
41	-0.03629	-0.17046	0.04392	0.04026	0.04061	0.06518	0.05696	0.06632	0.05351	0.11073
42	-0.05220	-0.01504	0.01546	-0.02180	-0.02251	-0.01290	0.00805	-0.03180	0.08207	0.14699
43	-0.04656	0.00202	-0.01413	0.03704	-0.05918	0.00668	0.13534	0.05706	-0.00637	0.22319
44	0.03271	-0.07576	0.08661	0.06594	0.02909	0.03721	0.14420	0.00844	0.01502	-0.09388
45	0.03282	-0.02812	0.00881	0.10883	-0.05112	0.11932	-0.01218	0.00262	-0.03865	-0.00671
46	0.06517	0.02937	0.03034	0.07293	-0.0241[illegible]	0.07480	-0.09978	0.03737	0.00472	-0.02957

G (3) (continued)

47	-0.00035	-0.07924	0.03244	-0.01783	-0.02098	0.01315	-0.08548	0.03264	-0.03981	0.01254
48	0.00643	0.04404	0.03075	0.06829	0.05509	0.20254	-0.13714	-0.02616	-0.03223	-0.06204
49	-0.06690	0.02093	0.01770	0.07120	0.03209	0.07419	-0.03929	-0.05282	0.02923	-0.00335
50	-0.02244	0.02629	0.02675	-0.01218	0.00264	0.02815	-0.07177	-0.02316	0.07504	0.01041
51	-0.00024	0.04839	0.03885	-0.01066	0.02385	0.00368	0.01116	0.02449	-0.01045	0.00867
52	-0.02051	0.00015	0.19467	0.12667	0.01428	0.07394	-0.06595	0.00220	0.20798	-0.02084
53	-0.14375	-0.07298	-0.07185	-0.13161	0.10216	0.02508	0.00453	-0.07669	0.03636	-0.02359
54	-0.01418	-0.03160	0.04099	0.01925	-0.01453	0.04219	-0.00850	-0.06909	0.01942	0.03181
55	0.01817	-0.01312	0.01065	-0.03737	0.00530	0.08266	0.04973	-0.01763	0.13845	0.00538
56	-0.03443	-0.02438	0.04425	-0.07773	0.01752	0.06912	0.09449	-0.02942	0.05929	-0.00188
57	0.01195	0.03302	-0.02933	0.04362	0.00423	0.14687	-0.01143	0.02335	0.01028	-0.05790
58	-0.03878	0.07067	0.01008	-0.07884	-0.02026	-0.03432	-0.05130	-0.03453	-0.01752	-0.00780
59	-0.64254	0.01534	-0.03440	-0.00939	-0.00790	0.01917	-0.01405	-0.11465	0.03676	0.08139
60	-0.24491	-0.04896	0.13761	0.02044	-0.02362	-0.00975	0.03662	0.06684	0.00375	0.02943
61	-0.64401	0.00024	-0.02245	0.09156	-0.00289	-0.00029	-0.02084	0.02691	0.02139	0.02507
62	-0.02333	-0.01369	-0.02452	-0.01008	0.00270	0.06452	0.02732	0.09540	0.10612	0.06167
63	0.00690	0.00194	-0.03354	0.03955	0.03495	-0.00693	-0.08532	0.00492	-0.03559	-0.01397
64	0.01545	0.01067	0.07922	-0.02300	0.13270	-0.01569	0.02820	0.01383	-0.02196	0.02767
65	0.06104	0.01066	-0.01209	0.02874	-0.01767	0.00365	0.03763	0.01126	0.01240	-0.02475
66	0.00212	-0.00638	0.10772	0.00098	0.12238	-0.00003	0.09380	0.00496	-0.02403	-0.01323
67	-0.01219	-0.00671	0.02364	0.04242	0.04570	-0.02180	0.09199	0.04345	-0.00302	0.00801
68	0.00455	0.02006	0.00642	-0.01292	-0.04612	-0.00735	0.00096	0.00791	0.00355	-0.02034
69	0.00247	0.03203	0.23218	-0.03852	0.02115	0.01354	0.00822	0.01693	-0.01561	-0.03208
70	0.00702	0.00243	-0.07632	0.03712	0.14712	0.02910	0.01456	0.00669	0.05906	-0.03154
71	-0.07313	0.05302	0.04548	0.05554	0.03560	-0.05269	0.06065	0.04972	-0.03412	0.04827
72	-0.02026	0.03594	0.03585	0.02783	-0.03254	-0.03489	0.03542	0.01864	0.03716	-0.01041
73	-0.07448	-0.05140	0.13655	-0.09953	-0.08135	0.07586	-0.11074	-0.14435	0.02096	0.09660
74	-0.01729	0.01302	0.52239	-0.02974	-0.05622	0.00449	0.02538	0.00288	0.05514	0.01936
75	-0.14704	-0.03573	0.33958	-0.06555	-0.06331	-0.02797	-0.20346	-0.12560	0.07467	0.13554
76	-0.06765	-0.00007	0.68294	-0.01223	-0.01062	0.01337	-0.02978	-0.00479	-0.02954	0.04011
77	-0.04218	-0.02571	0.25462	-0.02606	-0.05485	-0.04187	-0.14610	-0.01601	0.01189	0.03521
78	-0.01318	-0.00336	0.53737	0.05356	0.02095	-0.02372	0.03590	0.00963	-0.01409	-0.01984
79	-0.04320	-0.04799	0.21938	-0.04772	0.00609	-0.00151	-0.12496	-0.04447	0.02175	0.09163
80	-0.00315	-0.01187	0.20688	0.02620	0.06110	0.03728	0.01658	0.01660	-0.00798	0.01564
81	-0.12354	0.00463	-0.01108	-0.03570	0.16365	0.06043	0.01215	-0.02785	-0.04783	0.01816
82	-0.04150	-0.25474	0.01373	-0.05229	0.02883	0.16249	-0.06532	0.03764	0.10482	-0.11996
83	0.02508	-0.01772	0.06657	-0.01953	0.00274	0.06427	0.02799	-0.67574	0.02700	-0.07900
84	-0.34869	0.02318	0.00760	-0.08853	0.00632	0.05082	0.00033	-0.12757	-0.05054	-0.01574
85	-0.26964	0.03370	0.05950	-0.09689	0.01213	0.03754	-0.09555	-0.04377	-0.04908	0.03756
86	-0.02002	-0.02322	0.04439	-0.05130	-0.04985	-0.00400	-0.01937	-0.17209	0.03133	-0.06122
87	-0.05953	0.02608	-0.05523	-0.13467	-0.01572	0.06086	-0.00184	-0.20958	-0.10191	-0.07626
88	-0.07218	-0.26401	0.02439	0.25182	0.02542	0.08014	-0.03323	0.05930	0.06198	-0.07849
89	0.03255	-0.10017	-0.03154	-0.08161	0.03453	0.04381	-0.08101	-0.22462	-0.06341	0.03854
90	0.02930	-0.05604	0.12556	0.04880	0.01521	-0.01500	0.01813	-0.05009	0.00385	0.00626
91	-0.13794	-0.01240	0.07765	0.02730	-0.09634	-0.04846	-0.04891	0.01578	-0.00663	0.07981
92	-0.12201	0.04258	0.06481	0.02946	0.00843	-0.01349	-0.02480	0.02478	0.00846	0.10281
93	-0.06077	-0.02188	0.17385	-0.06201	-0.09363	0.03695	-0.17441	-0.03398	0.04215	0.02539
94	0.04594	0.01517	0.10155	0.03198	0.06532	0.00482	0.06736	0.04118	0.01054	-0.01364
95	-0.01714	-0.06060	-0.01780	0.05273	0.05099	0.10206	0.06457	-0.20118	0.05508	0.05428
96	0.03063	0.03265	-0.02699	0.03129	-0.02431	0.05019	0.00297	-0.05341	-0.00332	0.14289
97	0.03424	-0.02392	0.03565	-0.01558	-0.03688	0.01521	-0.14880	-0.19850	0.05150	0.01225
98	0.00114	-0.02939	0.03251	0.02192	0.04150	0.06160	0.02610	-0.26119	-0.00013	-0.06962
99	-0.10757	-0.07671	0.04152	0.03681	-0.06884	-0.00869	0.02533	-0.02061	0.02468	0.05242
100	-0.01366	-0.09702	-0.03322	0.04869	0.03312	0.05439	0.21892	-0.17955	0.24111	0.01925
101	-0.00508	-0.10177	0.01010	0.31814	0.10943	0.19537	0.10079	-0.04587	0.06670	-0.07471
102	0.04920	-0.11687	0.13799	0.01674	0.01227	0.12787	-0.02747	-0.26241	0.49489	-0.02693
103	0.01646	0.04528	-0.02431	0.01308	-0.01716	-0.02802	-0.01042	0.00332	-0.01377	0.03128
104	0.11156	-0.19303	0.07673	0.01234	-0.07757	0.10452	0.12096	0.03277	0.06731	0.09344
105	-0.03456	-0.11615	0.04844	-0.01220	-0.01213	0.11850	-0.00680	-0.04055	0.00076	0.00925
106	-0.16659	-0.37045	0.05402	-0.16277	0.01853	0.21221	-0.01593	-0.00487	0.04870	0.16417
107	-0.10163	-0.03106	0.01423	0.16381	-0.05708	0.00510	-0.02425	0.01495	0.03073	0.13383
108	-0.24269	-0.06943	-0.02045	-0.20419	0.05476	0.04154	0.03918	-0.16499	-0.03012	0.03670
109	-0.10465	0.02096	-0.05343	0.00301	-0.04765	-0.01883	-0.04437	-0.41650	0.02771	0.04250
110	-0.70992	-0.01562	-0.00262	0.02998	-0.03783	-0.00754	0.00744	-0.02891	0.03491	0.07358
111	-0.09907	-0.02380	0.04742	-0.07356	0.07371	0.05231	-0.00632	0.00699	0.00627	0.64630
112	-0.03270	-0.03757	0.07039	0.10834	-0.03144	0.02264	0.09867	0.05816	0.03724	0.40083

G (3) (continued)

113	0.01653	-0.02121	0.02443	0.05397	-0.06187	-0.00338	0.00574	-0.02034	0.00239	0.08616
114	-0.00727	-0.26488	0.01892	0.10070	-0.02986	0.17731	-0.00935	-0.37186	0.17289	0.14422
115	-0.09378	0.10298	0.09731	0.02908	-0.06829	-0.07922	-0.10216	-0.10882	-0.02286	-0.00689
116	-0.06667	0.00084	0.03052	0.06996	-0.04581	-0.05544	-0.03615	0.00570	0.04169	0.05414
117	-0.02449	-0.05065	0.10827	-0.00757	0.00613	0.03590	0.03942	-0.14955	0.05678	0.08652
118	-0.01824	0.03333	0.04036	-0.07202	0.05534	0.06533	0.07560	-0.44047	0.04033	-0.09309
119	0.01181	0.02437	-0.03928	0.00203	0.35215	-0.07856	-0.01103	-0.06064	-0.02608	0.11355
120	0.00322	-0.00599	-0.02733	-0.03496	0.18436	-0.05795	0.01434	-0.08529	-0.01458	0.00975
121	-0.02331	0.00241	-0.01797	-0.03269	0.17986	-0.08219	-0.06101	-0.00488	-0.01639	0.02036
122	0.02568	-0.00714	0.04758	0.02624	0.05557	0.16415	0.05416	0.06088	-0.02000	-0.02266
123	0.01353	0.03084	0.02204	0.00924	0.26843	0.01617	0.02775	0.07846	0.01654	-0.02283
124	0.00041	0.01553	0.01324	-0.01876	0.09449	-0.00944	-0.02473	0.01680	-0.02676	-0.02275
125	0.05775	0.03329	-0.01242	0.00568	0.59920	-0.02612	-0.02157	0.04560	-0.01627	0.08796
126	-0.02485	-0.00590	-0.03391	-0.03553	-0.12157	-0.01462	-0.05241	-0.05110	-0.04973	0.01986
127	-0.04141	0.00101	0.00455	0.00907	-0.00666	-0.00771	-0.08237	0.02676	-0.00771	-0.07797
128	0.05941	-0.11130	0.00083	0.14876	-0.35757	-0.01662	-0.06064	-0.04290	-0.03526	-0.00917
129	-0.08714	0.01150	-0.03402	0.01298	0.00946	-0.03279	-0.03297	0.02615	-0.06263	-0.05578
130	-0.01952	0.01280	-0.02734	0.02833	0.07463	-0.03956	0.07117	0.03166	0.01524	0.03098
131	0.01984	0.04636	0.06479	-0.00212	0.03449	-0.01104	0.05676	0.02549	0.01054	0.01507
132	-0.00405	0.04842	-0.07792	0.02563	-0.01853	0.23147	-0.05748	-0.03286	0.05809	-0.01487
133	0.00716	-0.12688	0.00935	0.03417	0.00471	-0.01015	0.15491	0.01505	-0.01339	-0.03775
134	-0.00934	-0.13763	0.03092	0.09808	-0.01878	-0.05763	0.10326	-0.02296	-0.01513	0.00021
135	-0.00246	-0.15500	-0.05524	-0.17496	-0.03354	-0.06039	0.11000	0.01490	-0.04362	-0.04200
136	-0.05162	-0.39264	-0.08213	-0.05717	-0.02559	-0.07081	0.11342	-0.02899	0.01622	-0.02309
137	-0.03369	-0.06125	0.01031	-0.10715	-0.03109	-0.01015	0.05544	-0.03228	-0.03515	-0.04203
138	0.07714	-0.32414	-0.03864	-0.01982	-0.00286	0.03381	-0.04871	0.00644	-0.01916	0.00701
139	0.01721	-0.14086	-0.02479	-0.02454	-0.00967	-0.01976	-0.00010	0.04814	-0.02257	0.01006
140	0.06583	-0.14557	0.05544	-0.06346	-0.04376	-0.02378	-0.10751	0.08708	-0.00902	-0.01231
141	-0.03674	-0.07077	0.00739	-0.02431	-0.09458	0.05204	0.02984	-0.03673	0.02861	0.03943
142	-0.19194	0.09982	-0.01265	0.02375	-0.00530	-0.00826	-0.00070	0.02130	-0.02415	0.18446
143	-0.02746	-0.02045	-0.05510	0.16037	0.05423	0.24649	0.06254	-0.11380	0.21105	-0.14243
144	0.00769	-0.17281	0.01994	0.04249	0.02044	0.06628	0.08537	0.00394	0.07951	-0.04179
145	-0.04694	0.03102	-0.07646	-0.03500	-0.01120	0.07926	0.02385	-0.04443	0.52831	-0.03489
146	0.04314	0.02003	0.00734	0.01962	0.02056	0.02429	0.03632	-0.51297	0.32669	-0.03089
147	-0.00202	-0.05339	0.05866	0.03529	0.01194	0.02852	0.05416	-0.16551	0.49909	-0.03675
148	-0.03408	-0.01472	-0.03329	-0.01460	-0.07205	-0.06732	0.00898	-0.14171	0.30634	0.09449
149	0.01249	-0.06157	-0.01024	0.01943	-0.00946	-0.00235	-0.03728	0.02169	0.14584	0.00961
150	-0.10805	-0.08910	0.07358	0.02130	-0.00352	-0.02464	-0.00465	0.00202	0.03453	-0.02211
151	-0.03611	-0.17706	-0.04963	-0.02170	-0.00976	-0.01846	0.07407	-0.05022	0.06915	0.05187
152	0.01092	-0.01783	-0.05563	0.03356	-0.09711	-0.05287	0.16958	0.00777	0.11705	0.06040
153	-0.00732	-0.01901	-0.00731	-0.01263	0.12649	0.06074	0.06394	0.04967	0.17912	-0.02496
154	0.01885	0.02614	0.01479	-0.04526	-0.04400	0.02107	0.07242	0.01151	0.17004	0.04058
155	0.02795	0.02774	0.03611	-0.00280	-0.01620	0.01516	0.11633	-0.48647	0.10009	-0.05634
156	0.07004	-0.03352	-0.01085	0.04876	-0.09122	-0.06492	0.07525	-0.22335	0.07121	-0.00255
157	-0.01465	-0.05317	-0.07965	0.04344	-0.04102	0.04762	0.31239	-0.11728	0.06342	0.03864
158	0.01614	-0.04305	-0.01486	-0.01559	-0.03377	0.03599	-0.04070	0.01758	0.00531	0.02195
159	0.03960	-0.07310	-0.03343	-0.05508	0.05282	0.00922	0.06575	0.00366	-0.00366	0.06159
160	-0.01536	-0.11076	-0.00539	-0.02191	0.00456	0.03062	0.05655	-0.00211	0.03962	0.08398
161	-0.02264	-0.03285	0.06496	0.06694	0.05063	-0.00736	0.00619	-0.00760	0.00324	-0.05079
162	-0.02625	0.02725	-0.03844	0.06148	0.10835	-0.03613	-0.05675	-0.00401	0.07068	-0.00413
163	-0.00821	0.13589	-0.02217	-0.00023	-0.06865	-0.06454	0.01473	-0.04064	0.01670	0.11962
164	0.03632	0.03945	-0.04387	-0.02801	-0.03475	0.00218	-0.03178	0.02022	0.03644	0.06500
165	-0.02114	-0.03318	-0.03153	-0.08724	-0.00894	-0.03601	0.08151	0.00890	-0.01058	0.08399
166	-0.14056	-0.15189	0.02002	-0.02511	-0.04201	-0.01318	0.05302	0.06593	-0.02679	0.10114
167	-0.00294	-0.00337	-0.00320	0.03457	-0.00599	-0.00841	0.03050	-0.02355	-0.02912	0.24764

G (4)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9
1	0.69419	-0.12452	0.00597	-0.17680	0.00076	0.21191	-0.03097	-0.03866	-0.12454
2	0.39912	-0.07807	0.04954	-0.11171	0.00369	0.57424	0.01683	0.12061	-0.39007
3	0.12891	-0.06822	-0.01165	-0.08161	0.00642	0.70933	0.11317	0.08197	0.02504
4	0.77394	0.01442	-0.08447	-0.03906	0.03024	0.00240	0.07821	0.03292	0.05437
5	0.71737	-0.06038	0.22244	-0.10514	-0.07283	0.18005	0.20590	0.03511	0.26976
6	0.64635	-0.06920	0.10038	-0.18159	-0.04652	0.22629	0.01287	0.04024	-0.23048
7	0.21646	-0.06165	-0.00619	-0.47393	-0.03585	0.54916	0.07707	0.00419	0.02295
8	0.31465	-0.15758	0.03246	-0.54905	-0.02480	0.44517	0.07360	0.03314	0.08779
9	0.18987	-0.18667	0.15175	-0.63591	-0.17263	0.14059	0.02353	0.44449	-0.02921
10	0.19292	-0.25285	0.15711	-0.72808	-0.04661	0.12140	0.18648	0.18560	-0.08797
11	-0.10328	-0.05405	0.35688	-0.20039	0.08848	0.01008	0.10647	0.27934	0.00474
12	-0.03772	-0.20141	-0.02102	-0.07964	-0.72317	-0.02552	-0.03606	-0.02382	0.01700
13	0.01112	-0.24195	0.08867	-0.14606	-0.09637	0.09214	0.08636	0.57716	-0.00809
14	0.16906	-0.01855	0.80328	-0.09492	0.07071	0.01634	0.06360	0.02408	-0.04996
15	0.02331	0.06906	-0.74320	-0.02009	0.12263	0.02632	-0.20829	-0.10850	-0.03902
16	0.08610	-0.17066	0.26058	-0.12529	-0.18140	0.05932	0.33677	0.40532	-0.03146
17	0.04417	-0.06362	0.01670	-0.01350	-0.56683	0.02505	0.05756	0.12159	-0.01110
18	0.30574	-0.23267	0.26871	-0.14513	0.01701	0.18541	0.52304	0.05495	-0.17502
19	0.03995	-0.26735	0.24736	-0.10925	-0.01266	0.09662	0.71862	0.15205	0.10715
20	0.03136	-0.54699	0.05468	-0.06972	-0.10431	0.13059	0.31237	0.19857	-0.06312
21	0.08384	-0.63458	0.07903	-0.25738	-0.18805	0.03656	0.18227	0.10101	-0.03968
22	0.07754	-0.77224	0.02757	-0.08878	-0.12111	0.05229	0.04387	0.12279	0.04384

G (5)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9	10
1	-0.43091	0.46528	-0.22779	0.07373	-0.01019	0.13355	-0.00673	0.07447	0.25065	-0.07713
2	-0.06263	0.03081	-0.87376	0.07468	-0.02544	0.11212	0.02715	0.04605	0.11519	-0.08938
3	-0.07298	0.42160	0.06819	0.12617	0.01061	0.07560	-0.10860	0.63271	0.10117	0.03549
4	-0.07215	0.00733	-0.15739	0.19281	0.00395	0.61726	-0.02939	0.08224	-0.01091	0.00440
5	-0.01282	0.07313	0.00804	0.03199	-0.66247	0.09174	-0.02359	0.01469	-0.00050	-0.12389
6	-0.08457	0.20913	-0.04933	0.10585	0.03850	0.35304	-0.00643	0.43039	0.01326	-0.05033
7	-0.44005	0.24132	0.03122	-0.02130	-0.16329	0.05899	0.03334	0.22636	0.10321	-0.07902
8	-0.09730	-0.00035	-0.03417	0.06605	-0.06056	0.49976	-0.03050	-0.01232	0.01666	-0.03436
9	-0.12456	0.12325	-0.39706	0.12691	-0.10475	-0.00770	-0.11650	0.09701	0.38890	-0.21351
10	-0.13213	0.26739	-0.14931	0.12693	0.02572	-0.03143	0.08580	0.41727	0.54827	-0.04695
11	-0.03500	0.15515	-0.06068	0.76821	0.00451	0.09262	-0.01324	0.06769	0.04635	-0.00902
12	-0.03608	0.03561	-0.05560	0.88492	-0.01133	0.04995	0.00852	0.04846	0.06910	-0.06608
13	-0.05863	0.01031	-0.07403	0.51193	0.03875	0.16777	-0.26197	0.05229	0.07956	-0.07369
14	-0.52373	0.47911	-0.04533	0.04290	-0.03058	0.08547	-0.03033	0.08643	0.26466	-0.14304
15	-0.62862	0.26736	-0.09708	0.05579	-0.01615	0.16429	-0.08389	0.04801	0.26733	-0.34672
16	-0.82671	0.15479	-0.05065	0.03966	-0.04343	0.11355	0.10665	0.01131	0.15263	-0.09386
17	-0.85513	0.09920	-0.08455	0.03476	-0.03858	0.15431	-0.00920	0.00704	0.17401	-0.23455
18	-0.74743	0.11262	-0.06494	0.03532	-0.02763	0.05466	0.07856	0.02210	0.08262	-0.01263
19	-0.34599	0.09125	-0.11516	0.04751	-0.00693	0.16747	-0.00808	0.23535	0.01067	-0.36927
20	-0.26766	0.04858	-0.31410	0.20343	-0.15434	0.08507	-0.33258	0.01064	0.15671	-0.41400
21	-0.07183	-0.00476	0.02453	-0.00489	-0.05216	0.26218	-0.09009	0.06903	-0.00543	-0.16941
22	-0.05145	-0.06782	-0.03470	-0.03945	-0.54773	0.04700	0.04538	-0.07960	0.01457	0.07473
23	-0.08133	0.19226	-0.03030	0.17607	-0.09627	0.16483	-0.53038	0.04491	0.10739	-0.11931
24	-0.07969	-0.00811	-0.00795	-0.00586	-0.57763	-0.07357	-0.21688	0.07649	0.02138	0.00842
25	-0.10639	-0.00505	-0.74948	0.05792	0.01775	0.09215	-0.09151	-0.04886	0.15716	-0.07428
26	-0.32640	0.46430	-0.07882	0.00318	0.01446	-0.01037	-0.17639	0.00009	0.49443	0.04680
27	-0.47221	0.23734	-0.17342	0.07937	-0.04910	0.04190	-0.20239	-0.08333	0.56248	-0.15342
28	-0.77342	0.15084	-0.06070	0.03007	-0.04451	0.01634	-0.10139	-0.01919	0.15856	0.06928
29	-0.79556	0.21005	-0.11373	0.06464	-0.12278	0.05744	-0.22893	0.06164	0.18767	-0.20308
30	-0.70394	0.06700	0.04970	-0.01217	0.03483	0.06819	0.01264	0.03568	-0.00636	-0.08245
31	-0.71536	0.21197	-0.07893	0.02218	-0.04569	-0.01565	-0.22813	0.12315	0.10795	-0.09934
32	-0.18766	0.74097	-0.04896	0.07395	-0.03605	0.03596	-0.04640	0.13930	0.13939	-0.11489
33	-0.16831	0.75591	0.04850	0.02360	-0.01579	-0.05420	-0.08054	0.13914	0.22121	0.11999
34	-0.18956	0.76937	0.00521	0.09143	0.03989	0.01871	-0.03737	0.13369	0.10924	-0.07661
35	-0.31037	0.42749	-0.17350	0.06577	0.00430	-0.01554	-0.01026	0.07718	0.71247	-0.06165
36	-0.38888	0.21163	-0.28537	0.14446	-0.04813	0.06543	-0.13667	-0.04505	0.63162	-0.27453
37	-0.37650	0.55341	-0.14194	0.10468	0.06445	0.09210	-0.08115	0.04544	0.22218	-0.28437
38	-0.50908	0.17870	-0.20164	0.10587	0.00029	0.07020	-0.11534	-0.09317	0.30024	-0.58350
39	-0.49329	0.02009	-0.23846	0.11401	0.04441	0.15358	-0.09057	-0.06739	0.20165	-0.58782

VARIABLE	FACTOR 11	12
1	-0.45270	0.08094
2	-0.02673	0.01760
3	-0.04620	0.09423
4	-0.00051	0.03267
5	0.01082	-0.07064
6	-0.00427	0.02965
7	-0.07131	0.50497
8	-0.01408	0.03591
9	-0.04058	0.05640
10	-0.00621	0.00671
11	-0.00026	0.04606
12	-0.02134	0.01527
13	-0.00606	-0.08362
14	-0.56010	0.05582
15	-0.36055	0.00038
16	-0.02121	0.17186

[illegible] 3) (continued)

17	-0.00289	0.02644
18	-0.00692	0.16475
19	-0.05443	0.05148
20	-0.00621	-0.09736
21	-0.04006	-0.11217
22	-0.00627	-0.01313
23	-0.01458	0.01902
24	-0.02319	0.30582
25	-0.02130	-0.03128
26	-0.17027	0.10660
27	-0.15355	0.02232
28	-0.07474	-0.12113
29	-0.06920	-0.03406
30	-0.02448	-0.02242
31	-0.01339	-0.01801
32	-0.00943	-0.00524
33	-0.15263	-0.04375
34	0.04790	0.06514
35	-0.04630	0.00458
36	-0.03162	0.00622
37	-0.06682	0.13808
38	-0.02996	0.07374
39	-0.05374	0.05353

G (6)

```
ROTATED FACTOR MATRIX

                     FACTOR
             1           2           3           4           5           6           7           8           9          1
VARIABLE
    1    0,09678     0,01345     0,09161     0,19265    -0,01228     0,12293    -0,12536     0,03164    -0,00708    -0,4
    2   -0,01587    -0,03963     0,68113     0,02811     0,00621     0,22607     0,00092     0,05733     0,05752    -0,0
    3   -0,28773    -0,06693    -0,02561     0,56531    -0,09129    -0,08289     0,17255    -0,07081    -0,04884     0,0
    4   -0,22676    -0,06889     0,02188     0,65766    -0,08166    -0,04561     0,07617    -0,04898    -0,04191    -0,0
    5    0,78859     0,04397     0,06572    -0,13729     0,06802     0,08407    -0,08279     0,04247    -0,03880    -0,0
    6    0,66676     0,11051     0,00740    -0,14320     0,02041    -0,01710    -0,11864     0,04417     0,09835    -0,1
    7    0,85424     0,14169     0,02557    -0,09370     0,22647     0,02456    -0,09657     0,04412     0,07323     0,00
    8    0,85502     0,17721     0,04628    -0,07240     0,04375     0,02703    -0,07484     0,06779     0,05993     0,12
    9    0,89872     0,11067     0,01445    -0,14937     0,06516     0,04452    -0,07839     0,06340     0,08630    -0,06
   10    0,81570     0,20861     0,04000    -0,03472     0,08368     0,01435    -0,03785     0,03604    -0,00970     0,13
   11    0,15709     0,16724     0,44890    -0,04549     0,14490    -0,01195    -0,03489     0,14169     0,09936    -0,21
   12    0,18925     0,23585     0,27411    -0,04688     0,01899     0,10488    -0,72872     0,14139     0,03026    -0,10
   13    0,22078     0,06893     0,16546    -0,09997     0,35257     0,01855    -0,18049     0,64802     0,08106    -0,07
   14    0,03609     0,29762     0,19312    -0,11625     0,00131     0,03822    -0,16866     0,77272     0,13223    -0,00
   15    0,35887     0,06099    -0,07389    -0,10109     0,71834     0,11852    -0,08758     0,16360     0,04771    -0,06
   16    0,07478     0,33939    -0,02352    -0,11371     0,28940     0,20064    -0,31430     0,13207     0,14254    -0,06
   17    0,04258    -0,00835     0,03883    -0,00026     0,06776     0,60100    -0,00408    -0,02522    -0,00178    -0,05
   18    0,17479     0,72659    -0,01408    -0,01353     0,07442     0,01767    -0,02935     0,00980    -0,05818    -0,06
   19    0,15750     0,59564    -0,00425    -0,09611    -0,07881    -0,03330    -0,15539     0,17811     0,08110     0,03
   20    0,14323     0,43347    -0,09405    -0,07444     0,07287     0,07510    -0,25240     0,20957     0,16966    -0,08
   21    0,30723     0,45855     0,24101     0,02647     0,04398     0,05898    -0,04667     0,09035     0,18717     0,07
   22    0,06306     0,70983     0,00930    -0,01456     0,09835     0,09878    -0,04502    -0,00282     0,25120     0,01
   23    0,05048     0,13837     0,14384    -0,02525     0,01360     0,05733    -0,04305    -0,00794     0,64806    -0,02
   24    0,08446     0,21880     0,10601    -0,08897     0,09372     0,02769    -0,07211     0,21648     0,55631     0,03
   25   -0,07177     0,00634    -0,06662     0,68129    -0,05462    -0,02365    -0,03511    -0,03780    -0,01081    -0,19
   26   -0,13868    -0,03165    -0,11064     0,34170     0,01584     0,05223    -0,08160    -0,08034    -0,06552     0,11
   27    0,87804     0,07276     0,02213    -0,18571     0,04753     0,03622    -0,07707     0,03937     0,02835    -0,16
   28    0,04785     0,17059     0,10574    -0,08758     0,06605     0,70377    -0,18297     0,06464     0,10473    -0,049
   29    0,18835     0,08013    -0,07126    -0,01537     0,05212     0,17965    -0,37112     0,11514     0,05505     0,03
   30    0,05793     0,04138     0,73397    -0,09138    -0,08751    -0,11531    -0,06820     0,39845     0,02539     0,01
   31    0,05117     0,00448     0,47715    -0,06173     0,06028     0,01636    -0,14512    -0,03199     0,15125     0,002
   32    0,06701     0,07203     0,06900    -0,06872     0,72610     0,05860    -0,03052     0,01400     0,04057     0,059

                     FACTUR
            11
VARIABLE
    1   -0,03359
    2   -0,01769
    3   -0,16073
    4   -0,11493
    5   -0,07603
    6    0,18738
    7   -0,05388
    8   -0,09103
    9    0,06605
   10   -0,10313
   11   -0,10039
   12    0,00220
   13   -0,11003
   14    0,06176
   15   -0,05836
   16    0,03699
   17    0,02312
   18   -0,05312
   19    0,09381
   20    0,07260
   21   -0,06048
   22   -0,01723
   23   -0,00071
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G (6) (continued)

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24   -0,00353
25    0,17279
26    0,27337
27    0,09904
28    0,00443
29    0,25402
30    0,07335
31   -0,05737
32    0,05973
```

G (7)

ROTATED FACTOR MATRIX

FACTOR

VARIABLE	1	2	3	4	5	6	7	8	9	10
1	0.00085	0.18875	0.02057	-0.01158	0.16310	-0.05268	0.76361	-0.00643	0.01700	-0.02494
2	-0.03540	0.21415	0.03863	-0.03352	0.16266	-0.02969	0.88098	-0.02829	-0.01493	-0.02744
3	-0.07066	0.18538	0.05516	-0.04648	-0.00490	-0.01620	0.81749	-0.03227	-0.00911	-0.04352
4	-0.05630	0.23468	0.03664	-0.02829	0.05524	0.00351	0.85820	-0.01750	-0.01332	-0.02690
5	-0.05049	0.21210	-0.00444	-0.01246	0.17756	-0.02939	0.56550	-0.02196	0.01838	-0.04099
6	-0.07234	0.07127	-0.03776	-0.04674	0.05548	-0.04231	0.63222	-0.05174	0.01792	-0.01418
7	-0.07225	0.04666	0.01997	0.00372	-0.00942	-0.05108	0.58219	-0.04950	0.02320	-0.00487
8	0.01444	-0.02548	0.02136	-0.01707	-0.01197	-0.07097	0.15043	0.02053	0.04499	-0.06745
9	-0.02256	0.03248	-0.02019	-0.02394	0.81044	-0.04922	0.21708	-0.00517	0.00937	0.01655
10	0.01927	0.05074	-0.02455	-0.01916	0.06518	-0.07330	0.15747	-0.01092	0.05034	-0.00716
11	0.05116	0.07413	-0.02967	-0.01680	0.76211	-0.06585	0.17877	0.00623	0.03245	0.02534
12	0.01561	0.90234	-0.01021	0.01252	0.11559	-0.03610	0.13564	0.03530	-0.02745	-0.01263
13	-0.01732	0.87025	0.03663	-0.00316	0.09408	-0.01281	0.21135	0.03409	-0.01706	-0.01309
14	-0.02914	0.85518	0.01652	-0.00003	0.02576	0.00097	0.19672	0.00378	0.00988	-0.01909
15	-0.04244	0.65336	-0.00203	-0.01345	0.02043	-0.00238	0.21577	-0.00360	-0.00492	-0.01742
16	-0.06706	0.67068	-0.02315	-0.01113	0.10260	-0.00673	0.04603	0.00165	-0.00849	-0.02052
17	0.00653	0.73125	-0.01597	0.07347	0.03874	-0.02564	0.14032	0.01226	0.00433	0.04028
18	0.02722	0.75073	-0.03345	0.05316	0.10230	-0.01317	0.12120	0.01798	0.01130	0.02914
19	0.00557	0.52379	-0.00951	0.00254	0.40570	-0.03719	0.00794	0.01433	-0.05495	0.00972
20	0.02164	0.35219	-0.01955	0.01597	0.35020	-0.03254	-0.02001	-0.00163	0.02107	0.02397
21	0.04628	0.41464	-0.01737	0.00248	0.40307	-0.02932	-0.00349	-0.00377	0.03135	0.03231
22	-0.03387	0.05879	0.03989	0.01798	0.21577	0.03430	0.05735	0.03343	0.00772	-0.03775
23	-0.13691	0.11566	-0.04069	-0.03299	0.12767	0.01879	0.00197	-0.04095	-0.01974	-0.06035
24	-0.03024	0.23963	0.00197	-0.00703	0.15121	-0.02796	0.27215	-0.00145	0.02529	-0.04300
25	-0.14801	-0.03213	0.02137	-0.01128	0.00467	0.06545	0.13568	-0.07284	-0.05765	-0.04401
26	-0.04578	-0.00681	-0.02419	-0.00902	-0.02352	0.05854	0.10765	-0.02460	-0.02359	-0.07349
27	-0.06552	-0.00836	-0.02789	-0.01929	-0.01208	0.06523	0.00729	-0.04265	-0.03073	-0.03553
28	-0.02753	-0.03171	0.03432	-0.01178	-0.01398	-0.03467	0.07461	-0.03090	-0.03273	-0.05374
29	-0.05351	0.05995	0.04868	0.01060	0.03833	-0.02083	0.01433	-0.03325	0.03624	-0.03247
30	0.02921	0.06255	0.05716	-0.01612	0.15751	-0.07065	0.13623	0.04129	0.13724	-0.03918
31	-0.03773	0.03606	-0.03023	-0.00014	0.05317	-0.04066	0.02168	-0.01672	-0.01388	-0.04635
32	-0.02437	0.04250	-0.01545	0.04822	0.16339	0.00618	0.11269	-0.03160	-0.00176	-0.00970
33	0.03502	0.00052	0.17609	-0.00631	0.12377	0.32258	0.02515	0.04253	-0.00320	0.04198
34	0.11009	-0.02975	-0.00023	0.01762	-0.04702	-0.00581	-0.02394	0.02553	-0.01558	-0.01096
35	0.00338	0.01553	-0.01787	-0.02261	0.63262	0.24398	0.04596	0.06835	0.08739	0.00498
36	0.00979	0.07131	-0.02795	0.01392	0.68299	0.25603	0.03293	0.05346	0.04453	-0.01126
37	0.05723	0.06592	0.02577	-0.02768	0.58632	0.08221	0.04735	0.06696	0.02400	0.07652
38	0.09839	0.11350	0.01036	0.10555	0.55912	0.03859	-0.02010	-0.02006	0.09598	0.05902
39	0.01235	0.08582	0.01001	-0.03203	0.77852	0.22317	0.03600	0.03151	-0.03992	0.04175
40	-0.03260	-0.01279	0.90245	-0.01232	-0.02209	-0.01054	0.04320	0.03364	0.03240	-0.01577
41	-0.01347	0.03146	0.90685	-0.03502	-0.01717	-0.01100	0.02390	0.01129	0.09329	-0.01655
42	-0.00530	-0.02322	0.77391	-0.01405	-0.01555	-0.02371	0.02740	-0.00313	0.01140	-0.02044
43	0.04090	-0.02476	0.73794	0.01332	0.00421	0.01442	0.01226	-0.00051	-0.03752	-0.02576
44	0.04823	-0.01269	0.67560	0.00595	0.00307	0.01212	-0.00373	-0.00853	0.01042	-0.00799
45	-0.03488	-0.01916	0.08150	-0.00865	0.01109	0.00005	0.02655	-0.00971	0.01297	0.00157
46	-0.00628	-0.00553	0.35145	-0.00789	0.02315	0.00134	0.02999	-0.00987	0.04764	0.00519
47	-0.00747	0.00750	0.65540	-0.01129	0.01732	-0.00151	0.05472	0.00578	0.14141	0.00606
48	0.02225	-0.00136	0.23526	-0.02165	0.07639	-0.00955	-0.02510	-0.01120	0.24701	-0.00527
49	0.02241	-0.00916	0.24014	-0.01524	0.08162	-0.00741	-0.02917	-0.00545	0.14689	0.01108
50	0.00383	-0.01586	0.23945	0.06562	0.04567	0.00127	0.04533	-0.01416	0.80250	-0.02329
51	0.00504	0.02152	0.16799	-0.00779	0.04999	-0.00186	-0.01111	0.01872	0.26709	-0.01978
52	-0.01499	0.01687	0.01869	0.02534	-0.00232	0.00367	0.00919	-0.00595	-0.00992	0.02383
53	0.00137	-0.00533	-0.02963	0.03333	0.11056	-0.02675	-0.00006	-0.01252	0.77307	0.02067
54	-0.02299	-0.00713	0.02414	0.04436	0.03390	-0.00645	0.00019	-0.01045	0.73303	0.04185
55	0.00302	0.01962	0.11025	-0.02360	0.09180	-0.00271	-0.03112	0.01200	0.33346	0.05163
56	-0.00075	0.01473	0.27163	-0.03055	0.04220	-0.01538	0.00668	0.00271	0.28229	-0.02125
57	0.00858	-0.02173	0.01044	-0.02543	0.07465	0.69379	-0.06069	0.04688	-0.01917	-0.00741
58	-0.00625	-0.02334	-0.01428	0.01025	0.02313	0.41519	-0.03868	0.03580	-0.00413	-0.03350
59	-0.00461	-0.00597	-0.00774	-0.00668	-0.01612	0.11726	-0.01402	0.04597	-0.01017	-0.00958
60	0.00215	-0.00907	-0.00210	-0.00821	-0.01987	0.14111	-0.00700	0.02754	0.00092	0.03440

G (7) (continued)

61	-0.01758	-0.02034	-0.00705	-0.02547	0.12034	0.76762	-0.03247	-0.00378	-0.01647	-0.00994
62	-0.00747	-0.01863	-0.01823	0.00886	0.03545	0.66369	-0.02629	0.12744	0.00159	0.02730
63	-0.00265	0.03970	-0.01313	0.78408	0.00137	-0.02308	-0.02028	0.03904	-0.00522	0.00910
64	0.01950	0.01506	0.00291	0.82411	-0.01195	0.02957	-0.00958	0.11659	-0.03242	-0.02360
65	-0.01516	-0.00669	0.00125	0.82358	-0.02255	0.02034	-0.00723	0.11215	0.01225	-0.01560
66	-0.01267	-0.03180	0.00337	0.36136	-0.03655	0.00778	-0.02157	0.05951	-0.00331	-0.02136
67	0.04483	-0.03688	-0.00250	0.24537	0.00436	-0.02138	-0.04885	0.03593	0.23147	0.00176
68	0.02542	-0.02675	0.01233	0.63714	0.02404	-0.01667	-0.02010	-0.01935	0.25274	0.01275
69	-0.01222	0.06891	-0.02385	0.72448	-0.00346	-0.01737	-0.03322	0.11172	-0.03218	-0.00314
70	0.04430	0.04246	-0.00152	0.80034	0.00455	-0.00134	-0.03403	0.07474	0.10131	0.05477
71	-0.02694	-0.00606	-0.00534	0.54195	0.07191	-0.03433	-0.02079	0.05659	0.05516	0.02475
72	0.65133	0.01128	0.02331	0.04072	0.02720	0.00148	-0.03043	0.16985	0.03642	0.18965
73	0.08268	0.03587	0.03691	0.13693	0.38099	0.06550	-0.06759	0.18301	0.06203	0.40820
74	0.23765	0.00438	-0.01382	0.11830	0.16435	0.06636	-0.05612	0.22528	0.03438	0.57554
75	0.13551	-0.03223	-0.01000	-0.02303	0.08430	0.04087	-0.04771	0.16041	0.00797	0.66011
76	0.50949	-0.01723	-0.03512	0.05249	-0.03057	-0.01319	-0.06416	0.07161	0.01068	0.45852
77	0.40505	0.05067	0.05930	0.10361	0.10634	0.02254	-0.05999	0.33699	0.02719	0.16627
78	0.25820	-0.02437	-0.02496	-0.00723	-0.04763	-0.03277	-0.04796	0.22403	0.00544	0.49097
79	0.72750	-0.00119	0.02765	0.02039	0.07637	0.02546	-0.01298	0.51108	-0.01593	0.02416
80	0.10362	0.02154	0.03912	0.02201	0.54359	-0.07348	-0.00092	0.02924	0.03788	0.16532
81	0.79736	-0.00522	-0.01446	0.01140	0.02348	-0.01336	-0.05952	0.02726	-0.03403	0.12544
82	0.72455	-0.01432	0.00797	-0.01734	0.13745	-0.00467	-0.03753	0.04122	0.01557	0.20350
83	0.58625	0.00274	-0.00567	0.01716	0.14063	0.01624	-0.05178	0.09091	0.01384	0.08578
84	0.05775	0.06586	0.02137	-0.00025	0.60347	0.14997	-0.06221	0.07123	0.07479	0.13943
85	0.13080	0.09257	-0.02752	0.04006	0.17163	-0.03727	-0.03048	-0.00497	-0.01500	0.37302
86	0.01536	0.09351	-0.02704	0.00361	-0.00115	-0.01443	-0.01026	-0.00262	-0.03449	0.06606
87	0.16635	-0.00000	-0.00704	-0.04777	0.01236	-0.02512	0.00814	0.03554	-0.00257	0.45648
88	0.58263	-0.03676	-0.04785	-0.02002	0.02364	-0.01295	-0.05293	0.05614	0.01333	0.42177
89	0.40610	-0.04925	0.04734	-0.05947	-0.04637	0.01162	-0.05472	-0.00540	-0.02172	-0.03513
90	0.21257	-0.03910	-0.02137	-0.01951	-0.04645	0.07427	-0.04076	-0.01236	-0.04260	-0.11045
91	0.08132	-0.04649	-0.01703	-0.04046	0.00477	0.34991	-0.04292	-0.02187	-0.01044	0.06110
92	0.15234	0.00313	0.05697	-0.03212	0.03578	0.02804	-0.01763	0.29598	-0.03339	-0.02022
93	0.18238	-0.04597	-0.02027	-0.03587	-0.01203	0.09401	-0.08302	0.15031	0.02653	0.04604
94	0.69003	-0.04669	0.00374	-0.04500	-0.06233	-0.02183	-0.03832	0.09493	-0.02466	0.08956
95	0.25415	0.03319	0.08627	-0.01818	0.03055	0.00506	0.00290	0.22947	-0.01703	0.02677
96	0.47107	-0.02570	0.00634	0.00855	0.02280	-0.00327	-0.03687	0.12367	0.00159	0.16592
97	0.15643	-0.00756	0.02581	0.00503	0.14003	0.00333	-0.00674	0.19133	0.03133	-0.00370
98	0.16399	-0.03861	0.06707	-0.02297	0.05450	-0.02010	-0.03971	0.02137	0.01643	0.04793
99	0.37133	-0.01860	0.00019	0.01070	0.09603	0.00963	-0.04211	0.14188	0.05562	0.25721
100	-0.01167	-0.03458	-0.03703	0.07445	-0.03763	0.03992	-0.06373	0.18739	-0.03170	-0.05236
101	0.10079	0.05853	0.00973	0.02645	0.00625	0.04701	0.02150	0.62450 ✓	-0.02791	-0.04062
102	0.11887	0.03939	0.03442	0.04702	0.03831	0.04712	-0.03620	0.70251 ✓	-0.01423	0.13390
103	0.05329	-0.02258	-0.01289	0.03572	0.00728	0.10536	-0.02300	0.44590	0.01317	0.08457
104	0.19660	0.03630	0.07712	-0.00462	0.04997	-0.02339	0.00477	0.49157	0.07711	0.01253
105	0.01081	0.00839	0.00061	0.19306	-0.01217	0.01906	-0.03347	0.71201 ✓	0.03165	0.03178
106	0.13133	-0.01776	0.00910	-0.04449	-0.03038	0.03253	-0.04515	0.11197	0.01996	0.08407
107	0.05705	-0.04962	-0.04065	0.03078	0.00634	0.09974	-0.06006	0.37995	-0.04611	-0.00047
108	-0.03364	-0.04219	-0.03629	0.15490	0.03476	0.06875	-0.03426	0.61357 ✓	0.00422	0.11795
109	0.07569	-0.01069	-0.02520	0.10678	0.01295	-0.01221	-0.04855	0.63808 ✓	-0.00285	0.21628
110	-0.02070	-0.01664	0.03068	0.07715	-0.01872	-0.01476	-0.00268	0.00176	0.07034	-0.03210
111	-0.01420	-0.00887	0.00794	0.10465	-0.00234	-0.01808	-0.01773	0.03451	-0.01970	-0.01500
112	0.04444	-0.00158	0.05418	0.23254	-0.01522	0.01373	0.00597	-0.01291	0.08693	0.03612

		FACTOR								
	11	12	13	14	15	16	17	18	19	20
VARIABLE										
1	-0.00890	-0.00952	-0.02773	-0.07553	0.00164	-0.08547	-0.00366	-0.02646	0.01483	0.00539
2	0.00709	-0.01016	-0.01498	-0.00065	-0.00343	-0.04809	0.03651	-0.03635	-0.00347	0.01864
3	-0.00405	-0.00472	-0.00206	-0.06773	-0.01758	-0.01740	-0.01753	-0.04272	-0.01563	-0.00468
4	-0.00074	-0.02551	-0.00237	0.04045	-0.01117	-0.03725	0.00551	-0.02527	-0.02008	0.03505
5	0.00238	-0.02219	-0.01061	0.12316	0.01209	-0.14642	-0.00761	0.01819	0.03901	0.02659
6	-0.01034	0.01556	-0.02047	-0.31371	-0.01365	-0.02197	-0.03529	-0.11631	-0.05959	-0.03302
7	-0.00433	0.05661	-0.03086	-0.32531	-0.00908	-0.01958	-0.05310	-0.05917	0.04575	-0.06432
8	0.02089	0.05009	-0.02488	-0.06082	0.00818	0.01924	-0.04453	0.02605	0.17795	-0.03950
9	-0.01714	-0.00499	-0.05049	0.06954	0.01416	-0.04227	-0.03487	0.01770	-0.01654	-0.07060

G (7) (continued)

10	-0.01516	-0.00156	0.01244	0.01937	0.02247	-0.02131	-0.03217	-0.02150	-0.00249	-0.09143
11	-0.00818	-0.00473	-0.00944	-0.00749	0.02432	-0.03600	-0.02566	-0.01644	0.00830	-0.07245
12	0.02332	-0.01039	-0.04050	-0.04332	0.00336	-0.03417	0.00223	-0.04234	0.00466	0.00959
13	0.04347	-0.01417	0.00030	0.02436	-0.00594	-0.02540	-0.00338	-0.03335	-0.02456	0.01351
14	-0.00109	-0.01461	0.01998	0.04524	-0.00365	-0.03747	-0.00435	-0.02521	-0.02319	-0.00413
15	0.01510	-0.01442	0.02017	0.07175	-0.00833	-0.01866	0.00493	-0.00855	-0.23236	0.02294
16	0.04348	-0.01502	0.00673	0.08283	-0.00758	-0.00260	-0.02442	-0.01339	-0.03394	0.04330
17	0.04814	0.02420	-0.02031	-0.14449	-0.00150	-0.02342	0.00150	-0.03576	0.00123	-0.02592
18	0.02534	0.01252	-0.01014	-0.14333	-0.00164	-0.01720	0.01653	-0.01728	0.01553	-0.03530
19	0.09516	-0.00650	-0.00011	0.04427	-0.00434	0.03854	-0.00472	-0.01119	-0.01951	0.01339
20	0.11370	-0.01187	0.03281	0.03489	-0.00111	-0.01245	0.02329	0.00066	0.00339	0.00711
21	0.05171	-0.01016	0.01634	0.02365	0.02580	0.00611	-0.02052	-0.02114	-0.03343	-0.01667
22	-0.00039	-0.00673	-0.00491	0.04399	0.00140	-0.60548	-0.00842	-0.03274	0.00855	0.01657
23	-0.02340	-0.02271	-0.00829	0.00056	-0.01617	-0.06369	-0.02972	-0.06592	-0.05402	0.00215
24	-0.00727	-0.03359	0.01070	0.11425	0.00456	-0.32023	-0.04052	0.02320	0.09165	0.03714
25	-0.03536	-0.02628	-0.04712	-0.21304	-0.03324	-0.32276	0.03075	-0.03212	-0.08705	-0.01859
26	-0.01513	-0.01859	-0.03766	-0.20729	-0.03662	-0.17072	0.02737	-0.05633	-0.02977	-0.03006
27	-0.00523	-0.02116	-0.04633	-0.13552	-0.02771	-0.40219	0.01031	0.00166	-0.03242	-0.01419
28	-0.00198	-0.01918	0.00280	-0.39345	0.00051	0.03756	-0.01190	-0.01623	0.04326	-0.01596
29	0.00433	-0.03304	-0.02187	-0.52364	0.00074	-0.01312	-0.02238	-0.02719	0.03592	-0.00764
30	0.05256	0.05001	0.05387	0.00194	0.02157	-0.46342	0.00424	-0.00170	0.04866	-0.01028
31	-0.00933	-0.01229	-0.02096	-0.04202	0.00264	-0.11353	0.07324	0.00516	0.06084	-0.00542
32	-0.01611	-0.01577	-0.02003	-0.43743	-0.00889	-0.20769	-0.00363	-0.03456	-0.00330	0.08949
33	-0.00267	0.01399	0.00844	-0.02400	-0.03262	-0.09573	0.03826	0.14417	0.51724	-0.05443
34	-0.00564	-0.00812	-0.01403	-0.02805	-0.01315	0.03033	-0.03815	-0.02663	0.69509	0.01511
35	-0.01550	0.02249	0.16407	0.02834	-0.03223	-0.16335	0.03015	0.03330	0.17724	-0.00434
36	-0.01018	-0.00322	0.04294	-0.14027	-0.00058	-0.11997	0.02540	-0.03545	0.02930	0.01469
37	-0.02228	0.03904	0.13291	0.03021	-0.00374	-0.20467	0.00033	0.05736	0.05849	0.01145
38	-0.02023	0.00254	0.03693	-0.29049	0.00346	0.01858	-0.01424	-0.03869	-0.01718	0.12531
39	-0.02292	-0.00776	-0.00959	0.01859	-0.34045	-0.01647	0.05482	0.03529	0.00302	-0.00789
40	0.04462	0.00670	0.04932	-0.02059	0.00273	-0.02338	-0.03268	-0.01848	0.05542	-0.10708
41	0.04078	0.01503	0.01531	-0.01799	-0.00022	-0.03332	-0.01040	-0.01243	0.04542	-0.05990
42	0.01258	0.02020	0.05801	-0.04182	0.00570	0.00113	-0.01972	-0.00685	0.01352	-0.05473
43	0.03287	-0.01657	-0.01657	-0.01351	-0.01066	0.03949	0.32603	0.00061	-0.02327	0.17145
44	0.07534	0.01424	0.00622	0.02200	-0.01226	0.02466	0.32757	0.03903	-0.04861	0.17409
45	-0.00953	-0.01010	0.01027	0.01856	-0.00542	0.07726	0.10374	0.00275	-0.00412	0.02322
46	0.01329	-0.00463	0.02769	-0.02322	-0.00680	-0.07246	0.21822	0.00642	-0.01209	0.01644
47	0.06702	0.03503	0.02678	-0.02429	-0.00571	-0.06243	0.15499	0.01442	0.01249	-0.02532
48	0.02804	-0.01246	0.05373	0.04016	0.00404	-0.00001	0.77116	0.02305	-0.01812	-0.03513
49	0.02216	-0.00532	0.03739	-0.01107	0.00481	0.00428	0.82325	0.02314	-0.00424	-0.00661
50	0.02306	0.00593	-0.00514	-0.03515	-0.00717	-0.00015	0.01212	-0.01469	-0.02257	0.01494
51	0.77307	0.05528	0.01507	0.01905	-0.02246	-0.02295	0.07066	-0.01733	-0.00137	-0.04257
52	0.78945	-0.01954	0.01826	0.00511	-0.00115	0.02036	0.02389	0.00698	0.01403	0.02779
53	0.01701	-0.01524	0.02310	0.00123	0.02467	-0.02204	0.17600	0.00401	-0.01349	-0.00176
54	0.15019	0.05516	0.02247	0.02107	-0.00329	0.00130	0.19668	-0.00036	-0.01938	0.05247
55	0.11058	-0.00460	-0.04297	0.07312	-0.01106	-0.03725	0.42013	-0.00345	-0.02193	-0.01610
56	0.44830	0.12195	0.03081	0.06210	-0.30967	-0.06883	0.03885	-0.01100	0.03192	-0.01476
57	-0.00537	0.00626	0.02840	-0.04341	-0.04322	-0.04544	0.04626	0.25122	0.27437	-0.07403
58	-0.00105	-0.01596	-0.04148	0.01551	0.00227	-0.01739	-0.01836	0.01345	-0.06310	-0.02086
59	0.00054	-0.03121	-0.02479	0.00371	0.76424	0.02372	0.01017	0.06124	0.00027	-0.00581
60	-0.00427	-0.00331	0.05121	0.01332	0.74675	0.00599	-0.00667	-0.03494	-0.03445	0.01267
61	-0.00640	0.00555	0.04565	0.02084	0.12748	-0.02580	-0.11942	0.03746	0.03303	0.04217
62	-0.01441	-0.01504	-0.01011	0.03140	0.29401	0.00057	-0.03103	0.03580	0.01954	0.02480
63	-0.01634	0.16116	0.02555	-0.01479	-0.00350	-0.01639	0.00326	0.10005	-0.00561	0.02499
64	-0.02447	0.05819	-0.02284	0.00951	0.00348	-0.02591	0.03818	-0.02756	-0.02780	-0.21448
65	-0.03070	0.11155	-0.02730	0.03382	-0.01358	-0.01213	0.00405	0.03776	-0.00726	-0.26660
66	-0.01390	-0.03431	-0.03692	0.02943	-0.01764	0.01825	0.01342	0.03563	0.01267	-0.37331
67	-0.00619	0.15646	0.00846	-0.12561	-0.00618	-0.05655	-0.05641	-0.03056	0.05291	-0.08325
68	-0.05002	0.11729	0.00413	-0.11709	-0.00844	0.03426	-0.05607	0.03528	-0.02352	0.34343
69	0.11841	0.00107	-0.01565	0.02565	0.00531	0.01112	0.01921	-0.02697	0.01577	-0.01217
70	-0.01565	-0.00418	-0.01980	-0.03192	-0.00126	0.02036	-0.04219	-0.03395	0.00396	0.12842
71	0.02668	0.03615	0.03360	-0.03310	-0.00302	0.03269	-0.00604	0.00750	0.03499	0.27523
72	0.01954	0.01091	0.04779	0.07163	0.03506	0.02964	-0.01447	0.14910	0.06472	0.01165
73	0.02878	-0.00474	0.24456	0.01348	0.05723	0.03669	0.04770	0.07261	-0.14065	0.21030
74	-0.00824	0.01390	0.18260	0.07294	0.07337	0.03067	-0.00099	0.13266	-0.05037	0.20626
75	-0.02866	-0.02032	0.15733	0.11066	0.05293	0.010[illegible]	0.01237	0.05921	-0.06218	0.05439

G (7) (continued)

76	-0.03279	0.02753	0.07097	0.09201	-0.05063	0.02948	0.02311	0.01360	0.15337	0.00690
77	0.08209	-0.02282	0.18139	0.06645	0.03478	0.04569	0.02556	0.32414	0.05250	0.03042
78	0.04000	0.06143	-0.03102	0.00113	-0.02876	0.04371	0.01951	0.08702	0.01753	-0.06173
79	0.01555	-0.03096	0.03546	-0.00475	0.36284	-0.00427	0.04056	0.16842	-0.01348	0.02732
80	0.07034	-0.03578	0.07202	-0.06626	-0.01275	-0.00309	0.12999	-0.02612	-0.15371	0.17182
81	0.01378	0.02152	0.03756	-0.01516	0.00068	0.06339	-0.02455	-0.02650	0.02029	-0.01223
82	-0.01527	0.03488	0.19534	0.01476	-0.03030	0.03480	0.04903	0.06414	-0.01555	0.04526
83	0.09355	-0.02081	0.05601	0.07138	0.00774	0.06729	0.00264	0.42043	0.06230	0.06429
84	0.13232	-0.01367	0.06531	0.03612	-0.05120	-0.01051	0.09810	0.71120	-0.09214	0.05958
85	0.14845	-0.03567	-0.03469	-0.06969	0.02667	0.03512	-0.02504	-0.03524	-0.06769	0.00490
86	0.50419	-0.02742	-0.04601	-0.01631	0.00015	0.01200	-0.00608	-0.03070	-0.00674	0.01563
87	0.00450	-0.20260	-0.01752	0.00752	-0.02260	0.02913	-0.00420	-0.32754	-0.02760	-0.04533
88	-0.03817	-0.02061	0.04367	0.04315	-0.00539	0.06474	-0.00660	-0.04464	0.10436	-0.05117
89	0.01428	-0.03449	0.15212	0.03446	0.01867	0.02514	-0.06534	0.62685	0.05455	0.00035
90	0.02571	-0.04242	-0.01322	-0.03537	0.00850	0.02567	-0.03527	0.21361	0.54472	0.01100
91	-0.00907	0.02906	0.16453	0.07964	0.01932	0.01525	-0.03308	0.49134	0.18464	0.04956
92	0.05930	0.03573	0.51354	-0.01125	-0.01561	-0.01549	0.00583	0.03856	0.03203	-0.01340
93	-0.00720	0.00175	0.20026	0.07552	0.02116	0.01652	0.05544	0.66643	0.04486	0.00359
94	-0.02922	-0.01621	0.30483	0.06241	0.00948	0.00147	-0.02551	0.07839	0.03156	-0.05995
95	-0.00241	0.01948	0.62425	-0.04732	-0.09669	0.04201	-0.03422	0.21063	0.05705	-0.01209
96	-0.04573	-0.01601	0.50279	0.05565	-0.02275	0.01853	0.02270	0.11003	0.04367	-0.01504
97	-0.01163	-0.01503	0.75038	0.00160	0.01692	0.01739	0.07149	0.13732	-0.12170	0.01292
98	-0.01946	-0.03872	0.35988	0.05613	0.02572	-0.01857	-0.01261	0.40214	-0.11345	0.00351
99	-0.04142	0.03401	0.54173	0.06019	0.02274	-0.00930	0.05061	-0.29134	-0.03314	0.03260
100	-0.01582	-0.03629	-0.08999	-0.06814	-0.02650	0.01728	0.10072	0.20404	0.06375	-0.16952
101	0.06231	0.06790	0.05778	-0.02123	0.04520	0.00529	-0.02521	0.03345	0.06728	-0.04905
102	-0.00709	0.04495	0.16904	0.06844	-0.01947	0.01622	-0.01729	0.07510	0.02333	0.06172
103	-0.03078	0.01556	0.12678	0.07555	-0.05401	-0.01773	-0.06481	0.43603	0.03591	0.07381
104	0.06530	-0.00026	0.28753	0.03265	0.05457	-0.01876	-0.02754	-0.01371	0.04353	-0.03586
105	-0.02113	-0.04938	-0.07535	0.03176	-0.01213	0.00257	-0.20301	0.03269	-0.05585	-0.12747
106	-0.01417	-0.02636	0.16172	0.00827	0.09417	0.00629	-0.04677	0.09502	-0.13141	0.02573
107	-0.02178	0.02014	0.06977	-0.05261	0.06683	0.03126	0.04392	0.50951	0.14779	-0.12643
108	-0.04161	-0.02072	0.22709	0.02034	0.10341	0.00803	0.09252	0.08199	-0.03157	0.06809
109	0.00343	-0.04314	0.11499	0.07660	-0.00425	-0.00652	-0.03255	0.07301	-0.05069	0.05152
110	0.02695	0.59506	0.01236	0.01542	0.00525	-0.00152	-0.03216	0.00020	-0.00151	-0.12344
111	-0.01543	0.83374	-0.01999	-0.00516	-0.03039	0.01803	0.00923	0.00668	-0.01356	0.05565
112	0.01614	0.47659	-0.03488	0.04374	-0.01534	0.00416	0.01430	0.04611	-0.00579	0.17345

	FACTOR					
	21	22	23	24	25	26
VARIABLE						
1	0.02572	-0.10124	0.01315	0.02273	0.04852	-0.01458
2	0.02585	0.01399	-0.03433	0.02753	-0.01420	0.00581
3	-0.02071	0.03526	0.03046	-0.00157	-0.00814	0.03968
4	-0.05175	0.08736	-0.03159	0.06194	-0.06010	0.03355
5	-0.05399	-0.12149	0.00213	0.04130	-0.14532	0.02739
6	0.03245	-0.05222	0.01962	-0.10451	0.07302	-0.06159
7	0.03432	-0.06373	0.15953	-0.17116	0.15196	-0.02749
8	0.02324	0.06039	0.24444	-0.02750	0.13970	0.02397
9	0.00117	-0.02639	-0.00472	-0.01592	-0.10531	-0.16151
10	0.05437	-0.01074	-0.03542	-0.03276	-0.03415	-0.26657
11	0.04730	-0.02048	-0.00726	-0.01130	0.04963	-0.18545
12	0.11715	-0.11292	0.03077	0.01666	0.05044	0.01582
13	0.00052	0.03374	-0.01277	0.03797	-0.05213	0.01501
14	-0.02168	0.04058	0.00226	0.00452	-0.01533	-0.00138
15	-0.01919	0.03443	-0.02044	0.05556	-0.04724	0.00564
16	0.01706	-0.40235	0.00277	0.00931	-0.13755	0.06751
17	0.01127	0.02175	-0.01073	-0.08366	0.17071	-0.01704
18	0.08440	-0.01414	-0.01721	-0.08026	0.10978	-0.57755
19	0.42270	-0.12608	-0.03064	0.03362	-0.04743	0.06235
20	0.67673	-0.05320	-0.03059	0.00317	-0.00636	0.02618
21	0.81504	-0.07332	0.00364	-0.00349	0.03681	-0.04480
22	-0.01175	-0.07112	0.04740	-0.01566	0.02309	0.09040
23	-0.02636	-0.04111	0.01485	-0.04694	-0.05505	0.04530
24	0.04562	-0.15669	-0.02672	0.05515	-0.07700	0.06064

G (7) (continued)

25	-0.01304	-0.04125	-0.03012	-0.08935	0.00162	-0.12871
26	-0.03340	-0.10377	-0.05964	-0.11136	0.05783	-0.08666
27	-0.00613	-0.07800	-0.04910	-0.03200	-0.05639	-0.08805
28	-0.01147	0.02601	0.03796	-0.00516	0.01114	0.05170
29	-0.00468	-0.02598	0.00225	0.04832	-0.03119	0.01703
30	0.02505	0.01218	0.08612	0.16298	0.15641	0.10017
31	0.07659	-0.44886	-0.02976	0.00939	0.03852	-0.03340
32	-0.00109	-0.00119	-0.07017	0.09787	-0.01915	-0.02060
33	-0.04849	-0.02447	-0.08156	0.04146	0.04410	0.13499
34	0.01372	-0.01553	0.01200	0.02054	-0.01110	0.00909
35	0.04454	-0.03251	-0.02913	-0.00893	0.00487	0.32528
36	0.06700	-0.11230	-0.04236	-0.02365	-0.01006	0.01414
37	0.01629	-0.03658	0.03704	-0.02554	0.01151	0.30073
38	0.00345	-0.02473	0.00043	0.04522	0.20792	-0.02795
39	0.03635	-0.05665	0.07431	0.00860	0.01105	0.19203
40	0.01782	0.03709	-0.01401	-0.05669	0.00118	0.06524
41	-0.01650	0.03882	-0.00830	-0.02964	0.03550	0.05138
42	0.01843	0.03239	0.06527	-0.02426	-0.01076	0.03600
43	-0.00640	-0.02459	0.04980	0.08635	0.00550	-0.10680
44	-0.05519	-0.02938	0.12546	0.01446	0.00550	-0.11767
45	-0.00708	-0.01037	0.31024	0.00517	-0.01017	-0.01141
46	-0.02282	0.03538	0.60163	0.02722	-0.03401	0.03637
47	-0.00921	0.01299	0.55503	0.00545	-0.02304	0.02266
48	0.04042	0.01158	0.13403	-0.00629	-0.02219	-0.01722
49	0.01368	-0.01674	0.17601	-0.03818	-0.04147	0.00965
50	0.01481	0.02027	0.07210	0.14445	-0.03088	-0.00267
51	0.02105	-0.00135	0.04573	-0.00697	0.00870	-0.06852
52	0.07936	0.00027	-0.03534	-0.00822	-0.07878	0.00004
53	0.02641	0.01692	0.02068	0.03803	0.01096	0.02042
54	0.00005	-0.00496	-0.01726	-0.02581	-0.01572	-0.02229
55	-0.05170	0.04377	0.09712	-0.03283	0.14154	0.07173
56	-0.05352	0.01038	0.16682	0.00920	0.00256	-0.05163
57	-0.04617	-0.01311	-0.09975	0.04947	0.04308	0.07943
58	0.00502	0.04660	0.00861	-0.02015	-0.06296	-0.09596
59	-0.00572	0.00263	-0.01167	0.01284	0.00934	0.00757
60	0.00912	0.00998	0.00117	-0.01042	-0.00368	-0.01072
61	-0.03581	-0.02269	0.07136	0.01081	0.06767	0.09194
62	0.02789	-0.00747	0.02545	-0.03082	0.00150	0.00294
63	-0.07186	0.02449	-0.01272	-0.04098	0.07936	0.02885
64	-0.02659	0.01598	0.01983	-0.06814	0.05634	-0.01034
65	-0.01570	0.02682	0.00669	0.01894	0.06082	-0.00281
66	0.02012	0.01285	0.00145	0.26172	-0.02654	-0.01709
67	0.06598	0.04199	0.00667	0.50955	0.01881	0.00037
68	-0.02476	0.01294	-0.05532	0.23774	-0.03084	-0.00174
69	0.09238	-0.02362	0.00011	0.00114	-0.02492	0.00881
70	0.03005	-0.00897	-0.00513	0.11923	-0.05939	-0.02790
71	0.01186	-0.00744	-0.02147	-0.04818	-0.07283	0.00238
72	0.00189	0.02503	-0.01226	0.05737	0.14189	-0.01627
73	0.15432	0.04426	-0.05192	0.05963	0.14492	-0.01761
74	0.06131	0.03052	-0.01542	-0.04138	0.10655	-0.08202
75	0.06405	0.02361	0.00589	-0.01180	0.04162	-0.06136
76	0.00288	0.01600	-0.00410	-0.04443	-0.01795	-0.08678
77	-0.00245	0.03874	0.02455	0.09343	0.34246	0.03420
78	-0.06607	0.01070	-0.01285	-0.01792	0.00251	0.00451
79	0.04406	0.07847	-0.02373	0.03030	0.06549	0.02580
80	0.15917	0.02741	-0.04025	0.08545	0.05829	-0.00458
81	-0.00230	0.03600	-0.02445	0.02143	-0.03059	0.02348
82	-0.00164	-0.00195	-0.02091	-0.01195	-0.05280	0.01199
83	-0.01430	0.02034	-0.01999	0.02404	0.16934	0.05911
84	0.04122	0.04292	0.01027	0.01262	0.04145	0.13749
85	0.01479	0.06436	-0.01958	0.02931	0.00383	0.00197
86	0.02133	0.01938	-0.03197	0.00354	0.04775	0.05238
87	-0.02092	0.01672	0.01226	0.03525	-0.05990	0.09885
88	0.00790	0.02800	-0.01355	0.01526	-0.04308	-0.01535
89	-0.00017	0.07068	0.04559	-0.06860	-0.06033	0.02275
90	-0.00809	-0.02175	0.05325	0.00120	-0.01543	-0.06860

G (7) (continued)

91	0.00449	0.00107	0.00576	-0.04398	-0.02267	0.02689
92	-0.04614	-0.02130	0.00768	0.20252	0.16738	-0.03592
93	-0.00542	0.00443	-0.00607	0.07844	0.10209	-0.02240
94	-0.00293	0.04214	0.01122	-0.01090	-0.10151	-0.02341
95	-0.01057	-0.03432	0.01593	0.04872	0.06222	-0.07672
96	0.04467	0.01261	0.01161	-0.02224	-0.12053	-0.06596
97	0.03626	0.01856	-0.00397	0.00699	-0.01577	0.05643
98	0.00392	0.02790	0.04043	-0.09755	-0.07224	0.10498
99	0.04756	0.00605	0.01158	-0.05625	-0.04637	0.05541
100	-0.01637	-0.05659	-0.05438	0.03335	-0.06818	-0.01523
101	-0.04011	-0.04475	-0.00485	0.09441	0.03949	0.04449
102	-0.00819	0.02367	-0.00633	0.01881	0.07544	-0.05700
103	0.06811	0.04613	0.01908	-0.09506	-0.02442	-0.09924
104	-0.02910	0.00431	0.03687	0.20206	0.21621	-0.00232
105	0.02147	0.01941	0.00225	-0.07993	-0.07476	-0.04448
106	-0.01651	0.02840	-0.01325	-0.03174	0.03762	0.01697
107	-0.03950	0.00543	-0.01993	0.12692	0.00524	-0.01950
108	0.02029	0.05411	-0.02705	-0.06027	-0.11262	0.09843
109	0.03118	0.03719	0.00671	-0.07200	-0.02895	0.05754
110	-0.00608	0.01628	0.00432	0.10261	0.01383	0.02202
111	0.01317	0.02239	0.00007	0.01616	-0.04230	0.01534
112	-0.02167	-0.00473	0.00824	-0.05572	0.03680	-0.04327

G (8)

ROTATED FACTOR MATRIX

VARIABLE	FACTOR 1	2	3	4	5	6	7	8	9	10
1	0.09884	0.19833	0.17481	0.01421	0.32527	-0.01357	0.03665	-0.00693	-0.03899	-0.10852
2	0.07152	0.17004	-0.05347	-0.04097	0.18597	-0.05538	0.47222	-0.04102	0.19504	-0.19135
3	0.08910	0.16003	-0.08948	-0.05353	0.04483	-0.01250	0.57301	-0.01648	0.15497	-0.17600
4	0.12202	0.54051	-0.05614	0.03031	0.24315	-0.06992	0.12236	0.02449	0.08269	0.09801
5	-0.01063	0.23822	-0.03367	0.05579	0.12533	-0.06243	0.08535	-0.03565	0.03595	0.02498
6	0.00452	0.38922	-0.01306	0.05543	0.14843	-0.05504	0.14410	-0.00952	0.08162	0.09376
7	0.00782	0.32017	-0.07139	0.00250	0.15391	-0.03624	0.20945	-0.00139	-0.10365	0.06509
8	0.11733	0.40722	-0.20444	0.04795	-0.03357	-0.00069	0.03019	-0.04362	0.02349	0.00620
9	0.05602	0.17840	0.07500	0.04207	0.22163	-0.02991	0.10861	-0.02953	0.01734	-0.06099
10	0.06719	0.22899	-0.03711	0.06657	-0.04520	0.04079	0.60129	0.01065	-0.02396	0.01711
11	0.00864	0.09129	0.01549	0.05693	0.00395	-0.00165	0.57290	-0.00132	-0.02468	0.04863
12	0.01556	0.14349	-0.03173	0.03324	-0.03549	0.00518	0.72592	-0.01247	-0.05630	0.05381
13	0.07313	0.57568	-0.01424	0.04204	0.05019	0.06405	0.02598	0.01055	-0.03292	0.11668
14	0.03450	0.38128	0.02817	0.03525	0.11553	-0.01594	0.11444	0.02314	-0.13245	0.17442
15	0.00097	0.33645	0.05809	0.03117	0.05318	-0.00279	0.33681	0.04507	-0.10012	0.07519
16	0.05100	0.47592	0.00243	0.01922	-0.05479	0.06154	0.34772	-0.00213	-0.07487	-0.00345
17	-0.03013	0.33916	0.03049	-0.00673	-0.04053	0.06052	0.02422	-0.04782	-0.03058	-0.02890
18	0.03625	0.44145	-0.07512	-0.04650	0.02796	0.60436	0.06652	-0.00965	0.09219	-0.03339
19	-0.04952	0.25243	0.00331	0.09132	-0.00042	-0.17037	0.04727	-0.10852	0.10137	-0.23176
20	0.09399	0.83249	-0.01675	0.00447	0.04463	-0.02459	0.12948	-0.05849	0.06113	-0.00222
21	0.04443	0.34639	-0.04435	0.02335	0.02223	0.05086	0.12637	-0.00294	0.05427	-0.06799
22	0.40849	0.47750	-0.10452	-0.05232	0.09509	0.16065	-0.04484	0.03694	0.14696	-0.16340
23	0.02552	-0.08240	-0.12343	-0.02253	0.06603	-0.01608	-0.04300	0.02489	-0.33787	-0.01950
24	-0.04263	-0.01758	-0.02602	0.30232	-0.09341	-0.06855	0.13230	-0.00015	-0.12719	-0.22870
25	-0.49658	-0.39235	0.10493	-0.10202	-0.07256	-0.23423	-0.02236	0.05625	0.04305	0.41782
26	0.39327	0.05032	-0.72697	-0.00091	-0.10594	0.03663	0.05168	-0.05197	-0.03780	-0.03409
27	0.30068	0.07576	-0.73452	0.02277	-0.02110	0.00079	0.04810	0.01095	-0.16693	-0.06800
28	0.24528	0.09744	-0.66869	0.04044	0.03044	0.01395	0.05541	0.02399	-0.27341	-0.07312
29	-0.26376	0.07399	-0.61590	-0.05707	-0.00385	0.08503	-0.04204	0.01621	-0.17377	-0.10680
30	0.33772	0.11660	-0.67041	0.00736	0.02278	0.01773	0.02337	-0.05916	-0.03374	-0.04821
31	-0.69810	0.02032	0.30252	-0.06595	-0.04293	-0.08402	-0.00047	0.00335	-0.17125	0.03339
32	-0.09012	-0.07596	-0.03492	-0.06640	-0.91454	-0.04720	0.01575	0.05429	0.00517	-0.00147
33	0.03151	0.07003	0.01766	0.04186	0.59958	0.01066	0.05029	-0.03507	0.02555	-0.06712
34	0.02522	0.14214	-0.03074	0.13963	0.54674	0.00729	0.00066	0.04840	-0.05390	0.10586
35	-0.01242	0.00179	-0.17228	-0.63743	-0.29318	0.06222	-0.02992	-0.13168	-0.01253	0.07767
36	0.01911	0.09228	-0.09075	0.72503	-0.00397	0.03393	-0.00122	-0.05255	-0.01778	0.09616
37	-0.11132	-0.00425	0.04906	0.33463	0.25033	-0.12233	0.02075	0.20588	-0.09776	-0.07971
38	-0.12386	-0.04434	-0.07484	-0.70022	-0.11368	0.02563	-0.05041	-0.00018	-0.04982	0.06708
39	0.01610	0.02223	-0.02767	0.22977	0.01816	-0.02758	-0.02226	-0.01216	-0.01224	-0.00416
40	-0.00213	0.04586	-0.02411	0.84013	0.01285	-0.03464	0.05230	-0.04399	-0.04146	0.02645
41	-0.39203	-0.06231	-0.04797	0.13971	-0.02060	-0.28329	0.07596	-0.05302	-0.27551	0.16353
42	-0.52122	-0.06011	0.04049	0.05554	-0.01621	-0.31996	-0.03818	0.03199	-0.34213	-0.06973
43	0.15667	-0.06355	-0.55733	0.00073	-0.04619	0.09173	-0.00055	-0.04382	0.02637	0.07930
44	-0.22423	0.03630	-0.20731	0.16573	0.02162	-0.17129	0.06480	-0.05442	-0.52964	0.03354
45	-0.22514	-0.00172	0.09827	0.25754	0.15325	-0.15083	0.07544	0.17818	-0.09176	-0.05673
46	-0.72450	-0.01561	0.06588	-0.02546	-0.00127	-0.02779	-0.06372	0.04934	-0.05567	-0.06121
47	-0.52078	0.11268	0.15597	0.04240	-0.03917	-0.05063	-0.05426	-0.25032	0.01474	-0.06393
48	-0.15444	0.62675	0.05974	0.15799	-0.01462	-0.03395	0.02684	-0.08732	-0.01347	-0.31343
49	-0.69463	-0.00075	0.11377	0.04414	-0.02357	-0.23063	0.01797	0.02314	0.00332	0.03668
50	-0.76735	-0.15258	0.21375	-0.00042	0.04595	-0.18603	0.06516	0.11510	0.08314	0.03726
51	0.01316	0.03730	0.04653	0.02206	0.03243	0.03625	-0.01509	-0.00113	-0.09246	-0.01959
52	-0.01125	0.03734	-0.36140	-0.02171	-0.13475	0.01096	-0.02279	-0.08683	0.02532	0.12278
53	-0.30707	0.11018	0.07297	0.15850	0.02015	-0.07265	0.11306	0.05952	-0.11859	-0.07683
54	-0.26950	-0.19437	0.14870	0.03850	0.00892	-0.34397	0.02828	0.02370	-0.05176	0.05328
55	-0.21144	-0.01021	0.04987	0.06840	0.05827	-0.60105	0.03585	0.23457	-0.06301	-0.04378
56	-0.15565	-0.01448	0.03254	-0.05311	-0.02461	-0.43181	-0.04114	0.12306	-0.01175	-0.02059
57	-0.22019	-0.03039	0.03925	0.01204	-0.01405	-0.67783	-0.02013	-0.00124	-0.04564	0.04003
58	-0.21159	-0.07264	0.05123	0.11955	-0.01645	-0.64371	0.03247	-0.04399	-0.05477	0.00290
59	-0.26264	-0.07707	0.07412	-0.01210	-0.00262	-0.12822	-0.00704	0.68718	0.01685	0.02081
60	-0.26664	-0.09122	0.03531	0.01073	-0.00390	-0.14234	-0.01583	0.72532	0.00903	0.03464

G (8) (continued)

61	-0.46255	-0.02857	-0.14052	-0.04137	-0.43417	-0.02000	-0.02003	-0.04221	0.17436	0.10619
62	-0.51039	-0.43014	-0.14530	-0.02326	-0.19918	0.00795	-0.11437	-0.03042	0.11479	0.21096
63	0.10364	-0.02433	-0.56172	-0.00776	-0.12946	0.11999	0.06076	-0.09457	0.14076	0.21329
64	-0.75632	0.05031	0.17425	-0.04294	-0.10720	-0.02201	-0.10359	0.03214	0.05794	-0.00496
65	-0.39475	-0.12037	0.06664	0.08794	-0.00663	-0.21456	0.03445	0.14737	-0.03436	-0.08962
66	-0.55676	-0.14339	-0.01056	0.06477	0.01634	-0.16450	-0.00421	0.21316	-0.04827	0.02281
67	-0.67249	-0.04441	-0.02719	0.00773	-0.01976	-0.16760	-0.01615	0.05791	0.03994	0.00031
68	-0.63779	-0.09717	0.10778	0.02681	0.00278	-0.13701	-0.03682	0.29552	0.02555	-0.03925
69	-0.70241	-0.10435	0.05707	0.05100	-0.01042	-0.08308	-0.03896	0.14939	0.10849	-0.02767
70	-0.70251	-0.07460	0.17127	-0.00335	0.07082	-0.13772	0.03263	0.06196	0.00303	-0.02405
71	-0.51137	0.03266	-0.02919	-0.02943	-0.14509	-0.07145	-0.03793	0.00215	-0.07047	-0.00496
72	-0.47970	-0.02263	-0.33847	-0.03700	-0.03773	-0.08520	-0.01984	-0.02177	-0.04717	0.00699
73	-0.34165	-0.02010	0.15323	-0.00298	0.05602	-0.14972	0.00722	-0.05235	-0.02733	0.00867
74	-0.72567	-0.08276	0.22579	-0.03713	0.01730	-0.00859	-0.01883	0.15709	-0.05276	0.04340
75	-0.84646	-0.02511	0.06175	-0.06325	-0.00940	0.04466	-0.05002	0.05749	-0.05945	-0.05121
76	-0.77331	-0.07336	0.22265	-0.00872	0.04474	-0.10976	-0.00308	0.05191	-0.15612	0.05478
77	-0.80427	-0.06590	0.06605	-0.06548	-0.02976	0.05106	-0.07425	0.07460	-0.08986	-0.04092

	FACTOR			
VARIABLE	11	12	13	14
1	-0.65677	0.02021	0.11094	-0.04090
2	-0.30042	0.06149	0.07503	-0.01331
3	-0.06435	0.05405	0.10589	-0.06072
4	-0.20279	-0.12570	0.10926	-0.02043
5	-0.03372	-0.01405	0.27043	0.12148
6	-0.35576	-0.06384	0.20208	-0.02445
7	-0.19452	0.01065	0.12314	0.04203
8	-0.05276	-0.07818	-0.12746	-0.13323
9	-0.56236	0.06982	0.08154	0.00121
10	0.23299	0.07802	0.09664	-0.04687
11	-0.09567	-0.04434	-0.07336	-0.01455
12	-0.04574	0.02494	-0.05373	0.05054
13	-0.06728	-0.04747	-0.05258	-0.11469
14	-0.40414	-0.07856	0.04395	0.01579
15	-0.26110	-0.34060	-0.02256	0.03495
16	0.25031	0.02591	0.06969	0.06315
17	0.05566	0.01787	-0.05304	0.03224
18	-0.03319	-0.06582	0.10644	0.06867
19	-0.16060	0.05746	0.15442	0.08124
20	-0.11935	0.07461	0.07743	0.02762
21	-0.08603	-0.04719	-0.01039	0.02427
22	-0.03374	-0.24467	-0.21416	-0.19195
23	-0.02226	0.01135	0.12301	0.06580
24	0.00299	0.27455	0.15531	-0.03713
25	0.03395	0.04633	0.01251	0.05527
26	-0.00726	0.00372	-0.00003	-0.02705
27	-0.01673	-0.01240	0.02079	-0.09358
28	0.03384	-0.08673	-0.03937	-0.10277
29	0.06096	-0.16432	-0.04043	0.11520
30	-0.02431	0.00592	-0.00627	-0.01951
31	-0.04160	-0.02293	-0.01059	-0.02501
32	0.05031	-0.05143	-0.03331	-0.03103
33	-0.24434	-0.02700	0.06565	-0.04273
34	-0.12595	0.00401	0.04443	0.03132
35	-0.01814	0.35801	-0.01846	-0.11053
36	-0.03453	0.03572	-0.04132	-0.06331
37	-0.11208	-0.07389	0.19388	0.04545
38	-0.04762	-0.06582	0.04076	-0.03316
39	-0.02043	0.01332	0.04659	-0.13597
40	-0.05711	0.02639	0.04623	-0.07934
41	-0.02427	0.26572	-0.12756	-0.12305
42	-0.04807	0.10993	0.02953	-0.10927
43	0.24105	0.04277	0.00639	0.05960
44	0.00755	0.04731	-0.04460	-0.03593

G (8) (continued)

45	-0.14046	-0.21220	0.15401	0.04796
46	0.03790	-0.09230	0.02151	0.12364
47	-0.02477	-0.22036	0.14903	-0.04030
48	-0.07217	-0.00250	0.12398	-0.06264
49	0.03303	0.10230	0.03678	-0.04521
50	0.01953	-0.01732	0.03629	-0.26142
51	-0.07732	-0.00455	0.47694	-0.02480
52	0.06565	-0.11401	-0.31168	0.11197
53	-0.06715	0.06609	0.04630	-0.22350
54	-0.06769	0.42206	0.01096	0.01553
55	-0.00663	-0.07042	0.05217	0.06710
56	0.00777	0.04693	-0.02246	0.01478
57	-0.03322	0.04713	-0.02241	-0.06077
58	-0.04035	0.14733	0.01252	-0.04173
59	0.00373	0.03245	-0.02077	-0.01240
60	0.02322	0.05433	0.00039	-0.01255
61	0.03075	0.16373	0.06540	-0.03791
62	0.02256	0.14732	-0.00478	0.03346
63	0.00441	0.14470	0.03452	0.00399
64	0.09651	-0.20118	0.00049	0.01703
65	0.00401	0.56503	0.03531	0.02192
66	0.02464	0.41699	-0.10183	-0.02592
67	0.06401	0.13609	-0.03475	-0.00558
68	0.01355	0.26199	0.12207	-0.00499
69	0.04516	0.16171	0.05406	-0.07510
70	-0.02445	0.01361	-0.00537	-0.30404
71	0.02630	-0.02050	-0.14449	0.02191
72	-0.03921	0.05032	-0.13513	0.27502
73	-0.06102	0.04795	0.06007	-0.06653
74	0.03045	0.01960	0.04259	0.06680
75	-0.03233	-0.04015	-0.12574	0.21717
76	-0.05150	0.01447	0.04877	0.01303
77	-0.02185	-0.02565	-0.15952	0.10672

APPENDIX H

FACTOR LOADINGS FROM OBLIQUE ROTATIONS IN EIGHT SECTIONAL FACTOR ANALYSES OF OAI WORK ELEMENTS (ITEMS) BASED ON THE OAI RATINGS OF 1414 JOBS*

(1) Table 50. Loadings for 20 Obliquely Rotated Information Received Factors

(2) Table 51. Loadings for 10 Obliquely Rotated Mental Activities Factors

(3) Table 52. Loadings for 30 Obliquely Rotated Physical Work Behavior Factors

(4) Table 53. Loadings for 9 Obliquely Rotated General Physical Requirements Factors

(5) Table 54. Loadings for 12 Obliquely Rotated Representational Work Behavior Factors

(6) Table 55. Loadings for 11 Obliquely Rotated Interpersonal Work Behavior Factors

(7) Table 56. Loadings for 26 Obliquely Rotated Work Goals Factors

(8) Table 57. Loadings for 14 Obliquely Rotated Work Context Factors

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*See Appendix E (1) to convert variable numbers in the eight sectional factor analyses to the appropriate OAI work element (item) numbers.

H (1)

OBLIQUE FACTOR PATTERN V(FP)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.022	-0.021	-0.003	0.044	-0.015	0.873	-0.026	-0.041	0.027	0.063	-0.013	0.018	-0.074	0.010	-0.001
2	-0.032	0.019	-0.012	0.014	-0.005	0.766	0.095	0.035	0.054	0.010	0.023	-0.016	-0.040	0.043	0.051
3	0.074	-0.080	-0.035	0.112	-0.028	0.742	0.002	-0.013	0.046	-0.005	-0.011	0.011	-0.151	-0.028	-0.007
4	0.074	-0.075	-0.055	0.018	-0.042	0.052	-0.032	-0.048	0.070	-0.066	-0.014	0.024	-0.070	-0.024	-0.025
5	-0.027	-0.045	-0.006	0.076	0.044	0.712	-0.037	-0.021	-0.060	-0.015	0.024	0.909	-0.003	0.046	0.101
6	0.021	-0.048	0.010	0.007	-0.055	0.776	0.016	-0.029	0.061	-0.000	-0.004	-0.005	0.115	-0.086	-0.060
7	-0.020	0.033	0.002	0.060	-0.008	0.765	0.034	0.061	0.059	-0.029	0.019	-0.032	0.051	-0.007	0.033
8	-0.053	-0.141	-0.047	-0.043	-0.177	0.539	-0.047	0.037	-0.037	-0.007	-0.028	-0.025	0.809	-0.020	-0.038
9	0.033	-0.057	-0.040	-0.111	-0.010	0.525	-0.073	0.166	-0.140	-0.016	-0.124	-0.007	0.279	0.079	-0.093
10	0.307	-0.159	-0.065	-0.128	-0.116	0.489	0.047	0.080	-0.035	-0.001	-0.131	-0.008	0.370	-0.078	-0.193
11	0.021	-0.085	-0.012	0.054	-0.168	0.026	-0.121	0.155	0.095	0.000	0.021	-0.025	0.738	-0.030	-0.065
12	0.078	-0.007	0.018	0.005	-0.131	0.445	-0.026	0.318	0.061	-0.001	0.097	-0.020	0.961	-0.033	-0.108
13	[illegible]	-0.003	0.003	-0.053	0.044	-0.004	-0.106	-0.140	-0.155	0.020	-0.059	-0.006	-0.232	0.059	0.017
14	0.785	-0.151	-0.051	0.066	0.024	0.056	-0.124	-0.142	-0.033	-0.016	-0.071	0.014	-0.217	0.018	0.048
15	0.347	[illegible]	-0.112	0.123	-0.257	-0.042	-0.101	-0.143	0.043	-0.012	0.001	-0.019	-0.003	-0.038	0.014
16	0.875	-0.105	-0.009	0.046	0.313	-0.005	-0.132	-0.131	-0.025	-0.004	-0.035	0.012	-0.180	-0.004	0.062
17	0.011	-0.075	-0.001	-0.102	0.122	0.090	-0.091	-0.132	-0.270	0.007	-0.092	-0.003	-0.219	0.142	0.070
18	0.753	-0.012	0.026	0.026	-0.102	-0.008	-0.053	0.042	0.136	-0.012	0.036	-0.015	0.386	0.006	0.015
19	0.773	0.024	0.062	0.032	-0.079	-0.065	-0.072	0.010	0.163	-0.010	0.126	-0.007	0.579	0.031	-0.015
20	0.695	-0.053	0.050	-0.082	0.062	0.055	-0.070	0.035	-0.192	-0.000	-0.073	0.004	0.136	0.088	-0.014
21	0.776	-0.050	0.040	-0.050	-0.046	0.020	-0.019	0.127	0.061	-0.008	-0.039	-0.024	0.250	-0.059	-0.112
22	0.731	0.062	0.255	0.031	-0.070	0.014	-0.124	0.219	0.150	-0.003	0.106	-0.018	0.633	0.016	0.034
23	0.544	0.051	0.064	0.083	-0.130	-0.016	-0.044	0.240	0.146	-0.009	0.111	-0.025	0.700	-0.054	-0.037
24	0.155	-0.062	0.354	-0.140	-0.105	-0.014	-0.036	-0.509	0.139	0.001	0.010	-0.007	-0.256	-0.091	-0.355
25	0.114	-0.007	0.026	-0.126	-0.055	0.024	0.155	-0.770	0.126	0.011	0.045	0.012	-0.104	-0.034	-0.057
26	0.603	0.045	0.355	-0.173	0.073	-0.055	0.196	-0.894	0.103	-0.005	-0.005	0.011	-0.291	-0.044	-0.041
27	-0.042	0.002	-0.041	0.122	0.370	0.024	-0.054	-0.408	-0.076	-0.008	0.057	-0.016	0.001	0.114	0.159
28	0.065	-0.077	-0.027	-0.083	-0.001	-0.007	-0.063	-0.567	0.091	-0.006	-0.632	-0.001	0.379	-0.012	0.019
29	-0.050	0.107	-0.071	0.111	0.271	0.026	-0.161	-0.549	-0.226	-0.051	-0.003	0.009	0.445	0.128	0.144
30	-0.117	-0.122	-0.044	-0.055	0.154	0.013	0.045	-0.585	-0.101	-0.028	-0.068	0.025	0.202	-0.024	-0.013
31	0.052	0.012	-0.039	0.034	-0.138	0.065	-0.137	-0.497	0.070	-0.003	0.049	0.012	0.662	0.058	0.073
32	-0.013	-0.015	0.353	0.045	-0.155	0.053	-0.000	-0.164	-0.014	-0.000	0.066	-0.031	0.751	-0.030	0.028
33	0.045	0.170	-0.023	0.085	0.374	0.021	0.446	-0.056	0.021	-0.051	-0.035	-0.005	-0.241	0.379	0.112
34	-0.067	0.191	-0.027	-0.130	0.399	-0.046	0.556	-0.117	0.037	-0.053	-0.087	-0.040	-0.274	0.171	0.003
35	-0.071	0.026	-0.056	0.096	0.147	0.006	0.597	0.070	-0.018	-0.032	-0.012	-0.040	-0.091	0.142	0.175
36	-0.071	0.035	-0.084	-0.029	0.034	-0.050	0.360	-0.031	-0.092	-0.015	0.783	-0.051	0.122	0.890	0.059
37	-0.033	-0.063	-0.113	-0.350	0.033	0.047	0.197	0.183	-0.102	-0.007	-0.032	0.022	-0.061	0.164	-0.057
38	0.039	0.039	0.025	-0.020	0.074	0.007	0.763	-0.037	0.012	-0.002	-0.010	-0.035	0.019	-0.175	-0.009
39	-0.011	0.116	-0.070	-0.019	0.150	0.021	0.530	0.172	-0.075	0.003	-0.006	0.006	-0.111	0.190	0.025
40	0.027	-0.072	0.017	-0.038	-0.123	0.010	0.712	0.039	-0.065	0.014	0.036	-0.009	0.135	-0.190	-0.057
41	0.021	-0.017	0.065	-0.021	0.019	0.065	0.652	0.140	0.322	0.006	0.010	0.022	-0.033	-0.142	-0.138
42	0.025	-0.009	-0.007	-0.026	0.035	-0.009	0.839	0.235	-0.073	0.026	0.022	0.025	0.061	-0.105	-0.018
43	0.046	-0.056	0.092	-0.002	-0.102	-0.036	0.198	0.049	-0.076	0.010	-0.022	0.009	0.057	-0.071	-0.137
44	-0.021	-0.001	-0.050	0.027	0.025	0.044	-0.016	0.185	-0.059	-0.003	-0.072	0.060	-0.120	-0.145	-0.193
45	0.566	-0.025	0.023	0.061	-0.107	-0.177	0.150	-0.069	0.146	0.003	0.120	0.003	0.174	-0.071	-0.037
46	0.020	-0.105	-0.149	-0.013	0.028	0.026	0.168	0.057	-0.066	-0.020	-0.132	-0.027	0.029	0.124	0.020
47	0.038	-0.047	-0.019	0.050	-0.135	-0.023	-0.175	[illegible]	0.159	-0.002	0.200	0.008	0.222	-0.065	-0.043
48	-0.154	0.357	0.067	0.150	-0.013	0.066	-0.041	-0.025	0.158	-0.029	0.039	-0.005	0.209	0.147	0.198
49	0.039	0.300	0.024	0.112	-0.386	-0.040	-0.047	0.125	0.373	-0.006	0.049	-0.002	0.378	-0.363	-0.136
50	-0.333	0.023	[illegible]	0.927	0.000	-0.055	-0.004	0.017	0.157	-0.016	0.088	-0.025	-0.004	0.319	-0.078
51	-0.001	0.050	[illegible]	0.564	0.001	-0.040	0.005	0.023	0.141	-0.012	0.062	-0.060	0.012	0.025	0.137
52	-0.032	0.073	-0.014	0.626	0.045	-0.003	-0.084	-0.028	0.029	-0.018	-0.003	-0.027	0.118	0.032	-0.098
53	-0.072	-0.343	-0.041	0.253	-0.038	0.039	-0.088	-0.353	0.065	0.064	-0.029	0.054	0.027	0.037	-0.384
54	0.095	-0.205	0.046	0.140	-0.033	-0.065	0.061	-0.021	-0.157	0.025	-0.054	-0.035	-0.098	-0.094	-0.080
55	0.034	-0.136	-0.012	0.594	-0.041	0.013	0.026	0.067	-0.125	0.011	-0.046	0.098	0.022	-0.147	-0.132
56	-0.047	-0.105	-0.042	0.501	-0.012	-0.031	0.020	-0.074	-0.222	0.004	-0.012	0.036	0.045	-0.037	-0.142
57	-0.024	0.015	-0.020	0.146	0.033	-0.036	-0.087	-0.032	-0.241	-0.015	-0.177	-0.042	0.095	-0.038	-0.161
58	-0.031	-0.035	-0.014	-0.177	-0.034	0.011	-0.006	0.034	0.311	-0.067	-0.029	-0.002	0.009	-0.047	-1.015
59	-0.000	0.030	0.003	-0.054	-0.017	-0.027	0.014	0.028	0.091	-0.005	-0.010	-0.008	-0.008	-0.055	-0.925
60	-0.033	0.077	-0.002	-0.005	0.022	-0.003	0.032	0.045	0.092	-0.013	0.024	0.025	0.037	-0.022	-0.804
61	0.056	0.061	0.071	-0.178	0.830	-0.040	0.052	0.042	-0.019	0.012	-0.008	-0.015	-0.194	-0.016	-0.030
62	0.024	0.134	0.026	-0.117	0.788	-0.056	0.068	-0.038	-0.062	-0.014	-0.001	0.005	-0.081	0.035	0.013

H (1) (continued)

63	0.047	0.055	-0.110	-0.055	0.099	-0.062	-0.111	0.052	-0.121	0.084	0.018	0.006	-0.000	0.047	0.012
64	-0.002	0.041	-0.007	0.006	0.037	-0.004	-0.060	-0.032	-0.134	0.902	-0.048	-0.019	-0.013	0.006	0.020
65	0.031	-0.010	-0.014	-0.055	0.255	-0.015	0.066	0.131	0.075	0.544	-0.015	0.028	-0.092	-0.054	-0.036
66	0.042	0.024	0.022	-0.101	0.741	-0.052	-0.041	-0.051	-0.209	0.007	0.127	0.015	0.021	-0.044	0.016
67	-0.007	0.049	-0.106	0.003	0.006	-0.014	-0.037	-0.030	-0.058	0.900	[illegible]	-0.011	-0.001	0.038	0.026
68	0.032	0.018	-0.027	-0.105	0.557	-0.043	0.007	0.120	-0.036	0.268	0.066	0.039	-0.035	-0.051	-0.046
69	-0.025	0.017	0.440	-0.027	0.035	0.014	0.050	0.041	0.045	0.003	0.099	0.337	0.196	0.398	-0.057
70	-0.031	-0.160	0.623	0.059	0.005	0.022	0.070	0.051	0.117	-0.011	0.006	0.390	0.071	0.100	0.007
71	-0.014	0.002	0.495	0.004	0.017	0.031	0.025	0.017	0.071	-0.065	-0.000	0.526	-0.007	0.095	-0.109
72	-0.032	-0.120	0.517	0.071	-0.045	0.025	-0.014	0.017	-0.032	0.032	-0.048	0.276	0.056	0.012	0.034
73	0.007	-0.045	0.715	0.002	-0.017	-0.069	0.012	-0.041	0.015	-0.032	-0.072	-0.023	-0.152	-0.066	0.031
74	-0.036	0.025	0.171	-0.155	0.343	-0.002	0.000	-0.014	0.046	-0.003	0.105	0.123	0.262	0.010	-0.128
75	0.027	0.005	0.520	-0.041	0.055	-0.035	-0.076	-0.027	-0.075	0.025	-0.013	-0.002	-0.073	-0.058	-0.047
76	0.023	-0.045	0.735	0.004	-0.021	-0.047	-0.045	0.031	-0.005	0.004	-0.001	-0.075	0.024	0.045	0.002
77	-0.015	-0.029	0.726	0.047	-0.012	0.000	0.021	0.052	-0.037	-0.005	-0.005	0.025	0.044	0.020	0.047
78	-0.017	0.111	0.722	-0.042	0.039	-0.046	-0.000	0.004	0.023	0.006	0.933	-0.025	0.073	0.372	-0.014
79	0.001	-0.038	0.303	0.717	0.015	-0.042	-0.011	0.022	-0.147	0.034	0.214	-0.012	0.059	-0.020	-0.055
80	-0.027	-0.219	0.035	-0.047	-0.018	0.003	0.010	0.023	0.183	-0.004	0.776	-0.001	-0.004	-0.025	-0.014
81	0.060	-0.145	-0.001	-0.027	0.054	-0.040	0.079	0.041	-0.100	-0.007	1.057	-0.013	-0.014	0.093	-0.021
82	0.051	-0.050	-0.051	-0.011	0.039	-0.052	0.075	0.084	-0.292	-0.021	0.851	-0.005	-0.015	-0.035	-0.063
83	-0.010	-0.213	0.059	-0.011	0.021	-0.057	0.008	0.027	0.255	-0.052	0.715	0.009	-0.011	-0.061	0.030
84	0.003	-0.041	-0.056	-0.006	0.039	0.016	0.070	-0.060	-0.077	0.029	-0.181	-0.025	-0.090	-0.011	0.014
85	0.043	-0.050	-0.024	0.016	0.025	0.029	0.003	0.040	-0.159	0.010	-0.165	-0.043	0.054	-0.038	-0.039
86	-0.056	-0.147	-0.037	-0.040	0.014	0.014	0.005	-0.007	0.050	-0.024	-0.134	-0.002	-0.159	-0.047	0.075
87	0.023	0.052	0.123	-0.035	-0.013	0.059	0.046	0.141	-0.054	-0.015	0.003	0.017	0.126	-0.003	-0.077
88	-0.025	0.195	0.104	-0.022	-0.006	0.025	-0.006	0.083	0.191	-0.012	-0.026	0.020	0.023	0.031	0.020
89	0.090	-0.105	-0.010	-0.102	0.161	0.002	-0.042	-0.159	-0.210	-0.011	-0.043	-0.007	0.352	-0.041	-0.163
90	0.152	-0.219	0.343	-0.087	0.021	-0.001	-0.052	0.055	-0.052	0.105	0.364	0.008	0.171	-0.048	-0.008
91	-0.025	0.105	0.077	0.033	-0.043	0.075	-0.043	-0.039	-0.145	0.003	0.113	0.022	0.025	-0.005	0.040
92	0.042	-0.055	0.073	-0.014	-0.047	0.061	-0.088	-0.054	-0.007	-0.004	0.147	-0.063	0.036	0.007	0.049
93	0.004	0.208	0.027	0.021	-0.030	0.021	0.035	0.036	-0.040	-0.006	-0.204	-0.005	-0.091	-0.006	0.036
94	0.042	0.161	0.054	0.047	0.177	-0.027	0.067	-0.001	0.077	-0.032	-0.137	-0.034	-0.024	0.170	0.072
95	0.014	0.341	0.002	-0.032	0.335	0.020	-0.026	0.021	-0.225	0.006	-0.066	-0.025	-0.043	-0.066	-0.003
96	-0.004	0.267	0.001	-0.025	-0.009	0.031	-0.023	-0.004	-0.197	0.001	-0.172	-0.054	-0.007	-0.046	0.001
97	-0.042	0.625	0.163	0.132	-0.019	-0.002	-0.010	0.045	0.232	-0.028	-0.036	0.010	-0.043	-0.020	0.193
98	0.744	0.557	0.152	0.110	0.026	0.029	0.054	0.073	-0.056	0.004	-0.022	-0.018	0.086	0.053	0.062
99	0.006	0.754	0.184	0.146	-0.008	0.029	-0.043	0.014	-0.029	-0.015	0.147	-0.024	0.177	0.005	0.003
100	0.003	0.750	0.156	0.174	-0.018	-0.072	0.022	-0.016	-0.143	0.031	-0.043	-0.033	0.044	-0.049	0.050
101	-0.025	-0.174	0.450	0.006	0.004	0.021	0.034	0.307	0.165	-0.029	-0.053	-0.050	-0.071	-0.125	-0.040
102	-0.144	-0.074	0.079	-0.057	0.091	0.015	0.078	0.058	0.249	-0.016	-0.054	0.001	-0.103	-0.115	-0.035
103	-0.015	-0.017	-0.025	0.067	0.049	0.016	-0.009	-0.006	0.025	0.006	0.026	0.852	-0.014	0.005	-0.030
104	0.017	0.029	-0.087	0.055	-0.030	0.043	0.013	0.007	0.101	0.055	0.025	0.024	0.046	0.026	0.012
105	-0.022	-0.012	-0.005	0.052	-0.017	-0.009	-0.017	0.009	-0.018	-0.001	0.000	0.720	-0.022	-0.011	0.020
106	-0.059	0.103	-0.120	0.048	-0.030	-0.004	-0.019	0.027	-0.220	-0.032	0.092	-0.016	0.061	0.131	0.007
107	-0.037	0.077	[illegible]	-0.050	0.340	0.041	-0.085	-0.020	-0.266	0.030	-0.172	-0.024	-0.003	0.068	0.003
108	-0.053	-0.107	-0.144	0.068	-0.056	0.002	-0.043	-0.038	-0.728	0.007	0.006	0.032	0.067	-0.015	0.044
109	-0.016	-0.255	0.140	0.170	-0.123	-0.013	0.102	-0.004	-0.689	-0.031	-0.084	-0.063	0.009	-0.130	0.051
110	-0.045	0.167	-0.155	-0.077	0.007	0.030	-0.132	-0.051	-0.533	-0.027	-0.200	0.025	0.057	0.068	-0.205
111	-0.011	0.247	-0.164	0.025	0.052	-0.021	-0.052	0.027	-0.454	0.062	0.035	-0.025	0.083	0.119	-0.046
112	-0.028	0.334	0.174	0.011	-0.089	-0.020	0.046	0.001	-0.088	-0.013	0.061	-0.037	-0.057	0.052	0.034
113	-0.071	0.457	-0.060	-0.087	0.167	-0.018	-0.012	-0.013	-0.403	0.036	-0.087	-0.024	0.005	0.180	-0.035
114	-0.055	0.022	-0.024	0.015	-0.092	-0.061	0.073	0.004	-0.065	0.037	0.056	0.004	0.025	-0.029	0.066
115	0.007	0.552	0.217	-0.057	-0.009	-0.035	0.032	0.022	-0.374	-0.022	-0.313	-0.056	-0.037	-0.011	-0.090

	16	17	18	19	20
1	-0.022	-0.023	0.307	0.007	-0.051
2	0.129	-0.045	0.046	-0.011	-0.065
3	-0.043	0.103	0.740	-0.508	0.155
4	-0.035	0.112	-0.012	-0.021	0.127
5	0.103	-0.216	0.067	-0.027	-0.096
6	-0.059	0.174	-0.036	-0.048	0.051
7	0.037	0.000	0.013	0.028	-0.160
8	-0.011	0.127	-0.159	-0.058	0.090
9	0.119	-0.329	0.166	-0.015	-0.050
10	-0.049	-0.017	0.118	-0.001	0.128
11	-0.012	0.051	0.006	0.032	-0.056
12	0.063	0.021	0.046	0.015	-0.254

H (1) (continued)

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 13     0.002 -0.197  0.016 -0.250  0.175
 14     0.031  0.091  0.034 -0.049  0.233
 15    -0.058  0.147 -0.015 -0.044  0.121
 16     0.025  0.094  0.017 -0.053  0.275
 17     0.231 -0.456 -0.010 -0.026  [illegible]
 18     0.073  0.095 -0.091  0.041 -0.152
 19     0.137 [illegible] -0.075  0.050 -0.360
 20     0.202 -0.461  0.030 -0.002 -0.066
 21    [illegible]  0.044  0.002  0.005  0.003
 22     0.140  0.104 [illegible]  0.075 -0.229
 23     0.047  0.068  0.037  0.041 -0.337
 24    -0.051  0.143  0.007  0.025 -0.039
 25    -0.054  0.062 -0.066  0.066 -0.193
 26    [illegible] -0.032 -0.044  0.067 -0.160
 27    -0.011 -0.130  0.024  0.023 -0.003
 28     0.033  0.087 -0.045 -0.030  0.071
 29     0.192 -0.112 -0.307 -0.071 -0.047
 30     0.007 -0.141 [illegible] [illegible]  0.127
 31     0.045  0.012  0.051  0.073 -0.234
 32    -0.032  0.001  0.040 -0.010 -0.259
 33     0.133 -0.026 [illegible]  0.066 -0.125
 34     0.021 -0.147 -0.015  0.110 -0.114
 35    -0.012 -0.120  0.115  0.062  0.045
 36     0.105 -0.035 -0.047 -0.065 -0.049
 37     0.123 -0.027  0.425 -0.061  0.111
 38    -0.130  0.104 -0.044  0.005  0.042
 39     0.203 -0.124  0.174  0.042 -0.016
 40    -0.199  0.139 -0.009 -0.097  0.103
 41    [illegible]  0.022  0.044  0.121 -0.013
 42    -0.122  0.114 -0.017 -0.064  0.177
 43    -0.139  0.005  0.452 -0.023 -0.045
 44    -0.102  0.013  0.765 -0.049  0.118
 45    -0.145  0.204  0.129 -0.009 -0.178
 46     0.152 -0.176  0.483  0.031  0.176
 47    -0.020 -0.022  0.796  0.052 -0.114
 48    -0.075 -0.125  0.494  0.114 -0.237
 49    -0.015 [illegible]  0.702 -0.008 -0.133
 50     0.049  0.124  0.019  0.053 -0.012
 51     0.035  0.192  0.002  0.021  0.022
 52     0.138 [illegible] -0.061  0.015 -0.035
 53    -0.069  0.345  0.040 -0.005  0.077
 54    -0.137 -0.267  0.013  0.005  0.120
 55    -0.113 -0.155 [illegible]  0.012  0.019
 56    -0.044 -0.275 -0.050 -0.015 -0.020
 57     0.099 -0.425 [illegible] -0.052  0.035
 58     0.019  0.083 [illegible]  0.036  0.075
 59    -0.011  0.021  0.059 -0.022  0.005
 60     0.072 -0.014 -0.010 -0.018  0.021
 61    -0.213  0.076 -0.043  0.065  0.040
 62     0.018 -0.006 -0.014 [illegible] -0.004
 63    -0.250  0.107  0.064 -0.010  0.035
 64    -0.073 -0.014  0.013 -0.071  0.013
 65     0.016  0.147 -0.024  0.021  0.377
 66     0.015 -0.040  0.045 -0.070  0.012
 67     0.020 -0.031  0.002 -0.036 -0.030
 68     0.023  0.070  0.055  0.146  0.044
 69     0.123  0.112 -0.173 -0.062 -0.017
 70     0.086  0.015 -0.051  0.206 -0.070
 71     0.025 [illegible] -0.021  0.015  0.015
 72     0.012 -0.069 -0.107  0.230 -0.026
 73    -0.010 -0.064  0.155  0.036  0.113
 74     0.129  0.053 -0.135 -0.051 -0.058
 75     0.000 -0.041  0.155 -0.236  0.046
 76    -0.005 -0.041  0.104 -0.071  0.032
 77     0.022 -0.056  0.065  0.191 -0.028
 78     0.147  0.026  0.020 -0.039 -0.035
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H (i) (continued)

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--   79      0.037  0.103  0.051 -0.044  0.720
     80     -0.040 -0.127  0.010  0.135 -0.001
     81      0.009  0.173  0.004 -0.004  0.070
     82      0.024  0.211  0.051 -0.153  0.208
     83     -0.001 -0.162  0.042  0.236 -0.062
     84      0.009  0.073 -0.048 -0.009  1.109
     85     -0.031  0.001 -0.045 -0.074  1.062
     86     -0.077 -0.211 -0.002  0.114  0.916
     87      0.022 -0.237  0.057 -0.002  0.241
     88     -0.127 -0.291  0.163  0.244  0.234
     89      0.033 -0.114 -0.115 -0.015  0.304
     90      0.103 -0.241  0.179  0.129  0.131
     91     -0.047 -0.273  0.042  0.024  0.109
     92     -0.004 -0.440  0.040  0.105  0.101
     93     -0.673  0.023 -0.103 -0.102  0.117
     94     -0.583  0.052 -0.012  0.710 -0.045
     95     -0.549  0.209 -0.105 -0.259  0.021
     96     -0.767 -0.067 -0.008 -0.087  0.005
     97     -0.176 -0.173 -0.076  0.094 -0.369
     98      0.051 -0.005 -0.007 -0.181 -0.176
     99     -0.017 -0.022  0.004 -0.346 -0.223
    100     -0.157  0.035 -0.069 -0.193 -0.091
    101     -0.077 -0.023  0.007  0.035 -0.017
    102     -0.172  0.095 -0.053  0.719 -0.122
    103     -0.053 -0.011  0.015  0.008 -0.048
    104      0.161 -0.005  0.050  0.751 -0.025
    105     -0.025 -0.009  0.050 -0.044  0.017
    106      0.101  0.120  0.054  0.373  0.078
    107     -0.355  0.345  0.060  0.303  0.122
    108     -0.161 -0.155  0.051 -0.143  0.085
    109     -0.143 -0.428  0.043 -0.012  0.062
    110     -0.112 -0.043  0.111 -0.037  0.060
    111      0.013  0.143  0.032  0.153  0.154
    112      0.169  0.046 -0.057  0.475  0.079
    113     -0.165  0.131 -0.059  0.309  0.117
    114      0.011 -0.192 -0.007  0.918  0.131
    115      0.156 -0.035 -0.005  0.917  0.030

V(FP) WRITTEN ON UNIT 7
FORMAT (5X, I3,20F9.6)
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H (2)

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                    OBLIQUE FACTOR PATTERN  V(FP)

            1        2        3        4        5        6        7        8        9       10
  1    -0.227   -0.083   -0.034    0.053    0.009    0.024   -0.103    0.798    0.002   -0.032
  2    -0.039   -0.109    0.270   -0.021    0.016    0.022    0.016    0.307    0.150   -0.158
  3    -0.228    0.071   -0.032    0.011    0.136    0.006   -0.212    0.455   -0.219   -0.006
  4    -0.173    0.649   -0.074    0.056    0.174   -0.069   -0.009    0.198   -0.231   -0.152
  5    -0.147    0.350    0.207   -0.020   -0.085    0.033    0.059    0.395   -0.091   -0.224
  6    -0.039    0.809   -0.067   -0.117   -0.046   -0.002   -0.064   -0.102    0.258    0.194
  7    -0.125    0.582    0.334   -0.243   -0.114    0.060   -0.063   -0.153   -0.057   -0.146
  8     0.043    0.151    0.154   -0.027    0.613   -0.077    0.077   -0.003   -0.154   -0.155
  9    -0.001    0.617    0.032    0.006    0.058   -0.037   -0.051    0.110    0.004    0.302
 10    -0.127   -0.179   -0.172    0.081    0.016   -0.161   -0.137    0.034   -0.045    0.030
 11    -0.074   -0.113    0.017    0.087    0.170   -0.020    0.200    0.002   -0.067   -0.055
 12     0.163    0.140    0.756   -0.070   -0.087   -0.149   -0.019   -0.074    0.019    0.061
 13    -0.126   -0.157    0.735    0.030    0.076    0.400   -0.016    0.095    0.025   -0.077
 14    -0.126    0.207    0.157   -0.051   -0.065    0.029   -0.078   -0.159    0.759    0.192
 15    -0.259    0.278    0.421    0.172   -0.030   -0.142   -0.217   -0.316    0.066   -0.067
 16     0.047    0.159    0.840   -0.076   -0.063    0.042   -0.009   -0.029   -0.222    0.041
 17     0.032   -0.037    0.455   -0.020   -0.021    0.075    0.127   -0.023   -0.017   -0.176
 18    -0.143    0.074    0.003    0.573    0.037    0.290   -0.202   -0.041   -0.041   -0.055
 19    -0.127   -0.069    0.303   -0.140    0.033    0.431   -0.058   -0.005    0.034    0.004
 20    -0.142   -0.135    0.165    0.467    0.124   -0.147    0.279   -0.066    0.240    0.125
 21     0.007   -0.042    0.789    0.087   -0.002   -0.016   -0.012   -0.041    0.013   -0.007
 22    -0.047    0.096   -0.024    0.227   -0.018    0.044   -0.246   -0.107    0.326   -0.096
 23    -0.230   -0.173    0.159    0.007    0.015   -0.017   -0.082   -0.041    0.080   -1.011
 24    -0.233   -0.273    0.070   -0.004    0.003    0.029    0.035    0.025   -0.011   -1.230
 25     0.251   -0.216   -0.015   -0.262    0.049    0.031   -0.025    0.093    0.765   -0.197
 26     0.244    0.277    0.055   -0.163   -0.192    0.046   -0.037   -0.023    0.571   -0.052
 27     0.320   -0.150    0.013   -0.201    0.037   -0.109   -0.280    0.207    0.498    0.043
 28     0.362   -0.111    0.268   -0.014   -0.116    0.036    0.169    0.033    0.066   -0.497
 29     0.104    0.354    0.043   -0.116   -0.136   -0.006   -0.121   -0.318    0.155   -0.490
 30     0.015   -0.160    0.092    0.038    0.451    0.174    0.048   -0.066    0.049   -0.133
 31     0.756    0.079    0.120    0.017    0.121   -0.046    0.172   -0.078    0.069   -0.035
 32     0.684    0.093    0.138    0.203   -0.070    0.043   -0.065   -0.057   -0.077   -0.020
 33     0.619   -0.056    0.187    0.029    0.142    0.083    0.174   -0.048    0.053   -0.239
 34     0.228    0.035    0.091    0.023   -0.050    0.005   -0.050   -0.098   -0.067   -0.654
 35     0.356    0.036    0.036    0.404   -0.057    0.447    0.015    0.003    0.043    0.112
 36     0.042    0.002    0.025    0.925   -0.014    0.222   -0.115   -0.016   -0.197   -0.089
 37    -0.145   -0.150   -0.072   -0.022    0.032   -0.016   -1.034    0.042   -0.007    0.064
 38     0.100    0.118   -0.021   -0.014   -0.199    0.035   -0.767   -0.044   -0.023    0.029

V(FP) WRITTEN ON UNIT 9
FORMAT USED = (I3,10F9.6)
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H (3)

OBLIQUE FACTOR PATTERN V(FP)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	-0.190	0.171	0.032	0.075	-0.187	0.106	0.011	-0.086	0.207	-0.129	0.028	0.051	0.017	-0.033	-0.104
2	-0.053	0.177	-0.004	0.015	-0.191	-0.032	0.462	0.011	-0.029	-0.005	0.171	-0.035	-0.058	0.039	-0.116
3	-0.177	0.165	-0.055	0.045	-0.027	-0.032	0.119	0.016	-0.054	0.048	-0.017	0.163	0.044	0.039	-0.526
4	0.087	0.015	0.014	0.016	-0.010	-0.050	-0.011	0.022	0.441	-0.025	-0.017	0.023	0.044	-0.069	-0.120
5	-0.193	-0.193	-0.175	0.006	0.041	-0.134	-0.145	0.085	-0.072	-0.014	0.069	-0.163	-0.059	0.054	-0.057
6	-0.065	-0.040	-0.149	0.199	-0.075	0.165	0.019	0.336	-0.156	-0.054	-0.074	-0.214	0.033	-0.000	0.100
7	-0.172	0.027	0.309	0.181	-0.307	0.165	0.410	-0.018	-0.147	0.022	0.028	-0.052	0.022	-0.022	-0.161
8	-0.173	-0.059	-0.306	0.206	-0.055	-0.155	-0.071	-0.059	0.151	0.111	-0.307	0.006	0.007	0.017	0.019
9	0.169	-0.074	-0.245	0.061	0.043	0.017	0.020	0.037	0.091	-0.004	-0.030	0.194	-0.010	-0.033	0.006
10	-0.044	-0.010	-0.120	0.043	0.121	-0.073	-0.024	-0.050	0.197	0.063	-0.091	0.119	0.143	-0.020	-0.140
11	-0.507	0.013	0.023	0.170	0.106	0.066	0.064	-0.172	-0.143	-0.009	-0.137	0.165	0.558	-0.005	-0.146
12	-0.174	-0.023	-0.004	-0.047	0.038	0.015	0.032	-0.050	-0.025	-0.087	-0.039	0.149	0.116	0.005	0.021
13	0.050	0.072	-0.173	-0.174	-0.051	-0.068	-0.015	-0.011	-0.093	-0.045	-0.059	0.072	-0.026	0.013	0.042
14	-0.194	0.029	-0.087	-0.157	0.130	0.129	0.130	0.018	-0.135	-0.022	0.106	-0.070	0.158	-0.048	-0.103
15	0.007	0.001	-0.025	0.036	-0.044	0.030	0.040	-0.042	-0.065	-0.006	0.015	0.255	0.019	-0.026	0.009
16	-0.030	0.771	-0.000	-0.030	-0.064	0.028	-0.008	-0.136	-0.023	-0.052	-0.045	-0.148	0.047	-0.013	0.096
17	-0.043	-0.022	0.013	0.026	-0.035	-0.024	0.026	-0.034	0.195	0.002	-0.002	-0.007	0.003	0.737	0.015
18	0.045	-0.122	0.060	0.049	0.052	-0.017	0.036	-0.057	0.070	0.101	0.036	-0.043	0.007	-0.043	-0.043
19	-0.242	0.055	0.067	-0.062	-0.095	0.037	0.176	0.052	-0.233	-0.016	-0.032	-0.050	0.063	0.120	-0.071
20	0.125	0.145	-0.105	-0.247	-0.104	0.094	-0.058	-0.052	0.277	-0.113	-0.036	0.048	-0.049	0.030	0.082
21	0.172	0.481	-0.096	-0.063	-0.166	-0.044	0.051	-0.109	0.059	0.048	0.073	0.076	-0.120	0.067	-0.093
22	-0.049	0.534	-0.120	0.225	-0.167	-0.011	0.084	-0.179	0.106	0.022	0.019	0.004	-0.056	0.027	-0.186
23	-0.285	0.052	0.159	-0.039	-0.071	-0.114	-0.015	-0.047	0.215	0.037	0.026	-0.123	0.056	-0.025	-0.107
24	0.282	-0.053	-0.029	-0.056	0.065	0.063	-0.067	0.082	0.001	-0.046	0.194	0.092	-0.088	-0.007	-0.032
25	0.169	-0.033	-0.093	-0.254	-0.035	0.043	-0.033	0.035	-0.071	-0.152	0.031	-0.000	-0.074	0.009	-0.045
26	0.014	-0.059	-0.030	0.006	0.023	-0.069	-0.102	0.056	-0.015	-0.041	0.041	-0.024	-0.050	-0.001	-0.063
27	-0.097	0.023	-0.009	0.279	-0.036	-0.022	0.183	-0.069	-0.033	-0.006	-0.076	0.055	-0.001	0.014	0.041
28	0.247	-0.075	-0.067	0.153	0.137	0.171	-0.087	-0.008	0.017	0.046	-0.040	0.041	-0.101	0.018	-0.016
29	0.041	0.213	-0.001	0.116	-0.124	-0.172	-0.079	-0.095	0.215	0.093	-0.093	-0.146	-0.015	0.015	0.003
30	-0.040	-0.007	0.109	0.030	-0.075	-0.097	-0.039	-0.005	0.508	0.131	-0.040	-0.026	0.019	-0.019	-0.013
31	0.165	0.077	0.352	-0.045	0.052	0.093	-0.193	-0.007	0.089	0.032	0.038	-0.010	0.073	-0.007	-0.039
32	0.021	-0.007	0.059	0.086	-0.178	0.091	-0.092	-0.066	0.234	-0.160	-0.161	0.011	-0.035	0.017	0.091
33	0.073	-0.130	0.116	-0.076	-0.010	-0.037	-0.112	-0.019	0.125	-0.130	-0.008	0.248	0.071	0.017	0.163
34	0.150	-0.012	0.094	-0.073	-0.034	-0.105	0.038	0.057	0.217	0.030	0.019	0.134	-0.048	-0.004	0.004
35	-0.071	0.107	0.347	-0.052	0.267	0.129	-0.029	-0.079	-0.251	-0.044	-0.077	0.267	0.014	0.045	-0.211
36	0.039	0.751	0.106	-0.014	-0.105	-0.023	-0.052	-0.125	0.023	-0.026	-0.074	0.006	0.052	0.032	0.144
37	-0.022	-0.034	0.041	0.021	-0.025	0.017	-0.035	-0.002	0.009	0.045	-0.008	-0.019	0.005	0.791	0.004
38	0.120	-0.065	0.755	-0.156	0.043	0.044	-0.024	0.021	-0.035	0.033	-0.007	0.003	-0.013	0.041	0.043
39	0.049	0.120	0.174	-0.056	-0.163	0.056	0.013	0.041	0.076	0.015	-0.032	0.008	-0.119	0.142	-0.111
40	0.215	-0.020	-0.162	-0.307	-0.125	0.168	0.069	0.093	-0.249	0.028	0.089	0.117	-0.029	-0.002	0.243
41	0.093	-0.022	-0.158	0.204	0.019	0.074	0.038	-0.073	0.021	-0.025	-0.034	-0.014	0.028	-0.032	0.213
42	-0.009	0.073	-0.025	0.019	-0.037	0.065	0.065	0.036	-0.090	-0.150	0.067	0.135	-0.028	-0.015	0.122
43	0.013	0.137	0.355	-0.222	0.130	0.087	0.024	-0.029	0.115	-0.067	-0.048	-0.194	-0.066	0.043	-0.057
44	0.153	0.037	0.012	-0.188	-0.080	0.143	-0.039	0.110	0.011	-0.120	0.058	-0.048	-0.123	-0.012	-0.158
45	0.071	0.074	0.059	-0.041	-0.046	-0.059	0.059	0.063	0.520	-0.078	0.142	-0.038	-0.024	0.042	-0.051
46	0.212	0.080	0.378	-0.098	-0.022	-0.052	-0.006	0.389	-0.242	-0.042	0.121	-0.227	0.003	-0.010	-0.130
47	0.343	0.057	0.327	0.051	-0.029	-0.002	-0.038	0.046	-0.134	-0.034	0.113	-0.167	-0.309	0.005	-0.374
48	0.564	0.061	0.054	-0.217	0.147	0.018	-0.132	0.133	-0.045	-0.021	0.370	0.041	-0.054	-0.035	-0.219
49	0.145	-0.014	-0.136	-0.113	-0.035	0.075	-0.062	0.079	-0.111	-0.003	0.635	-0.121	0.018	-0.008	0.050
50	-0.014	0.026	0.029	0.081	-0.026	0.054	0.034	-0.004	-0.073	-0.047	0.491	-0.030	0.017	-0.012	-0.024
51	0.052	-0.004	0.007	0.046	0.047	-0.042	0.310	0.023	-0.056	-0.172	-0.066	0.118	-0.020	-0.024	0.184
52	0.102	0.014	0.301	-0.106	0.143	0.017	0.027	-0.040	-0.105	-0.022	0.406	-0.066	-0.170	-0.039	-0.041
53	-0.167	-0.015	-0.075	0.021	-0.249	-0.042	-0.122	0.030	0.092	0.130	-0.034	-0.494	-0.025	-0.019	0.085
54	0.127	0.021	0.043	-0.160	-0.042	-0.132	0.080	0.165	0.658	-0.085	0.012	-0.059	0.008	-0.002	0.012
55	0.657	-0.024	-0.016	-0.307	0.105	-0.046	-0.365	0.204	0.015	-0.083	-0.028	0.202	-0.019	-0.014	0.127
56	0.584	-0.034	0.305	-0.246	-0.003	-0.028	-0.120	0.176	-0.034	-0.073	-0.007	0.096	0.084	-0.018	0.095
57	0.557	0.027	0.015	-0.196	0.189	-0.050	0.039	0.157	0.253	-0.035	0.140	0.073	-0.021	-0.033	-0.024
58	0.214	0.024	0.040	-0.111	-0.022	0.036	-0.043	0.026	0.003	0.001	-0.061	-0.156	0.875	-0.006	0.026
59	-0.202	-0.037	-0.095	0.009	-0.042	0.045	-0.067	0.039	-0.065	0.025	0.013	-0.144	0.048	-0.001	-0.089
60	0.153	-0.059	0.106	0.129	0.026	-0.060	0.084	-0.129	0.202	-0.076	0.026	-0.057	-0.046	-0.006	0.154
61	-0.027	0.075	-0.056	-0.021	0.981	0.015	0.021	-0.192	-0.049	-0.046	-0.049	-0.219	-0.004	-0.019	-0.214
62	0.045	0.009	-0.146	0.235	-0.109	0.011	0.031	-0.024	-0.059	0.145	0.151	-0.183	-0.073	0.112	0.192

H (3) (continued)

63	-0.024	0.169	-0.028	0.121	-0.061	0.127	-0.039	0.312	-0.236	-0.001	0.037	0.089	-0.038	-0.024	0.037
64	-0.003	0.545	0.051	0.082	-0.095	0.025	-0.035	0.147	-0.014	-0.041	0.012	-0.033	-0.009	-0.047	0.091
65	-0.057	0.107	-0.015	-0.021	0.106	-0.006	0.032	0.164	0.085	-0.061	-0.028	-0.245	0.002	0.007	0.010
66	-0.030	-0.072	0.017	-0.008	-0.005	-0.002	-0.003	0.643	0.140	-0.140	-0.008	-0.036	-0.015	-0.019	0.099
67	-0.078	0.152	-0.021	0.031	-0.074	-0.051	-0.245	0.185	0.255	0.025	-0.033	-0.127	0.012	0.083	0.073
68	-0.016	-0.005	0.003	0.012	-0.004	-0.002	-0.000	0.154	0.056	-0.009	-0.041	-0.019	0.007	0.025	-0.015
69	-0.123	-0.105	-0.106	0.160	-0.169	-0.000	-0.002	-0.013	0.371	0.495	-0.038	0.004	0.017	0.005	-0.043
70	-0.091	0.073	-0.077	0.147	-0.090	-0.015	-0.031	0.015	-0.043	0.434	0.037	0.043	-0.012	0.049	-0.051
71	-0.123	0.153	0.035	0.114	0.140	0.045	-0.071	-0.070	0.114	-0.038	0.036	-0.533	0.019	-0.016	-0.051
72	-0.014	-0.095	0.047	0.052	0.054	-0.025	0.015	0.069	0.268	-0.024	-0.039	-0.070	0.002	0.054	-0.058
73	0.052	-0.075	0.047	0.152	0.064	0.078	-0.032	0.263	-0.230	0.049	-0.110	-0.424	0.094	0.065	-0.020
74	0.057	-0.038	0.043	-0.212	-0.032	-0.055	0.040	0.102	0.032	-0.018	-0.091	-0.149	0.163	0.036	0.083
75	0.455	0.048	0.031	0.227	0.135	0.074	-0.164	0.258	-0.271	0.153	0.029	0.182	-0.044	0.012	-0.023
76	0.024	0.011	-0.011	-0.012	-0.160	-0.014	0.009	-0.050	0.054	0.171	0.036	0.049	0.020	0.008	-0.004
77	0.212	-0.034	0.043	0.267	0.247	0.073	-0.096	0.457	0.006	0.024	-0.056	-0.117	-0.009	-0.004	-0.119
78	0.057	0.054	0.017	-0.141	0.075	0.011	-0.012	0.165	0.109	-0.120	0.076	-0.140	-0.067	-0.007	-0.014
79	0.243	-0.126	-0.045	0.030	0.160	0.100	-0.104	0.774	-0.173	0.053	-0.035	0.087	-0.001	-0.017	0.016
80	-0.055	-0.113	-0.026	-0.047	-0.001	-0.024	0.280	0.311	-0.037	-0.086	0.016	-0.016	-0.055	-0.025	0.123
81	-0.064	-0.030	-0.023	-0.021	0.445	0.025	0.047	0.001	0.123	0.003	-0.065	0.073	0.017	-0.013	-0.209
82	0.242	0.125	-0.018	0.233	-0.097	-0.040	0.005	-0.059	-0.034	0.122	-0.003	0.110	0.027	0.000	0.102
83	-0.131	-0.052	-0.070	-0.095	-0.215	-0.046	-0.045	0.076	0.226	0.136	-0.028	-0.062	0.032	-0.010	-0.071
84	0.024	-0.129	-0.015	0.257	0.013	0.049	0.000	-0.015	0.237	0.422	-0.124	0.019	0.177	-0.036	-0.024
85	0.043	-0.054	-0.019	0.105	0.075	0.153	-0.081	0.025	0.343	0.328	-0.131	0.164	0.049	0.097	-0.044
86	0.159	-0.067	-0.113	0.131	0.012	-0.040	-0.022	0.031	0.148	0.625	-0.058	-0.109	0.004	-0.003	0.042
87	0.113	-0.042	-0.030	-0.205	0.054	0.070	0.013	0.134	0.214	0.130	0.027	-0.017	-0.007	-0.001	0.200
88	0.247	0.193	-0.047	0.056	0.025	-0.033	-0.108	-0.047	-0.373	0.250	0.005	0.126	-0.029	-0.039	0.053
89	0.017	0.046	-0.015	-0.307	-0.077	-0.027	-0.050	0.025	-0.205	0.201	0.034	0.234	-0.058	-0.033	0.152
90	-0.372	0.004	-0.142	0.127	-0.212	-0.066	0.039	-0.073	-0.096	0.916	0.088	0.036	-0.048	-0.025	-0.070
91	0.072	0.037	0.073	-0.111	-0.038	-0.007	0.043	-0.035	-0.202	-0.043	0.005	-0.672	0.097	0.030	-0.034
92	-0.105	0.045	0.077	0.140	0.177	-0.003	-0.018	-0.191	-0.053	0.020	-0.073	-0.379	0.056	-0.022	-0.148
93	0.405	0.007	0.393	0.242	0.179	0.003	0.142	-0.016	-0.214	-0.039	0.014	0.104	0.090	0.001	0.110
94	[illegible]	-0.355	-0.353	0.016	-0.369	0.069	0.016	0.671	0.145	0.067	0.014	-0.169	0.019	-0.010	0.055
95	-0.130	-0.022	-0.023	0.300	-0.222	-0.038	0.114	0.028	0.131	-0.210	0.080	0.038	0.041	-0.007	0.112
96	-0.063	0.023	0.067	0.935	-0.121	-0.033	0.027	0.074	0.028	-0.088	0.165	-0.012	0.038	0.004	0.038
97	0.083	0.159	0.130	0.924	-0.035	-0.012	-0.120	-0.113	-0.130	-0.022	0.071	0.078	0.029	0.003	-0.047
98	-0.144	-0.021	0.201	0.915	-0.236	-0.054	-0.072	-0.016	0.152	0.024	0.101	0.050	0.031	-0.020	-0.024
99	0.134	-0.074	-0.044	-0.039	-0.036	0.035	0.039	0.034	0.040	0.056	0.193	-0.098	-0.166	0.034	0.109
100	-0.008	-0.130	-0.041	0.305	0.020	-0.058	-0.006	0.033	0.141	0.004	0.170	0.042	-0.053	0.005	0.094
101	0.014	-0.049	0.020	-0.143	0.234	0.139	-0.016	0.029	0.022	-0.138	0.013	-0.156	-0.056	-0.048	-0.088
102	-0.014	-0.074	-0.095	-0.212	0.085	0.057	0.110	0.203	-0.158	-0.021	0.114	-0.135	-0.007	-0.012	-0.013
103	0.105	0.005	0.027	-0.002	0.148	0.045	0.026	0.025	-0.116	-0.018	-0.126	-0.071	0.044	0.005	0.189
104	0.263	0.087	0.042	-0.154	0.033	-0.146	0.359	0.027	-0.212	-0.044	0.132	0.152	-0.050	0.013	-0.057
105	-0.261	0.007	0.022	0.070	-0.070	-0.063	-0.091	-0.053	-0.300	0.014	0.057	-0.135	0.074	-0.005	-0.119
106	0.077	-0.057	0.035	0.127	-0.039	-0.054	-0.051	-0.035	0.057	0.020	0.117	0.015	0.013	-0.044	0.122
107	0.023	0.131	-0.061	-0.307	0.067	[illegible]	0.033	-0.173	-0.132	-0.152	-0.034	-0.028	-0.064	0.062	-0.174
108	0.054	-0.015	-0.177	-0.294	0.082	-0.093	-0.034	0.063	0.133	0.030	0.033	-0.054	-0.140	0.001	0.393
109	0.125	-0.010	0.037	-0.246	-0.030	0.016	-0.022	0.152	0.113	0.034	0.085	0.090	-0.024	0.011	0.365
110	-0.034	-0.143	-0.018	0.085	-0.038	0.053	-0.013	-0.045	0.362	0.012	-0.030	-0.154	-0.046	-0.014	-0.048
111	0.009	-0.013	0.406	0.001	0.047	0.019	-0.016	-0.009	0.109	0.035	-0.012	0.094	-0.004	-0.063	0.015
112	-0.225	-0.015	0.028	-0.207	0.055	0.005	0.111	0.034	0.062	-0.171	0.040	-0.238	-0.013	-0.029	-0.093
113	0.044	0.363	0.039	-0.075	-0.020	0.005	-0.333	-0.107	-0.071	0.043	-0.077	-0.033	0.078	-0.006	0.152
114	-0.202	0.602	-0.030	-0.201	-0.041	-0.183	0.013	0.045	-0.259	0.020	0.071	0.114	0.027	0.003	0.081
115	0.129	0.053	0.176	0.221	0.234	0.024	-0.111	-0.044	-0.225	0.222	0.030	-0.046	-0.014	0.008	-0.099
116	0.062	0.083	0.359	-0.072	0.179	-0.039	-0.035	-0.013	-0.062	-0.003	-0.338	0.089	-0.056	0.036	-0.019
117	-0.210	-0.300	-0.021	0.000	-0.073	-0.110	0.107	-0.074	-0.006	-0.071	0.155	0.048	0.054	-0.095	0.152
118	-0.215	-0.130	-0.042	-0.005	-0.067	-0.088	-0.023	0.034	0.120	0.101	0.013	-0.014	0.080	-0.042	0.086
119	0.250	-0.031	0.177	-0.209	0.019	-0.005	-0.355	0.087	-0.061	0.354	-0.002	0.028	-0.065	0.125	0.330
120	0.150	-0.198	0.711	-0.159	0.012	0.002	0.006	0.103	0.354	0.058	-0.037	0.021	0.077	-0.019	-0.011
121	0.259	-0.137	0.722	-0.057	0.008	0.016	-0.025	0.066	-0.029	-0.055	-0.023	0.027	-0.046	-0.046	0.001
122	-0.227	-0.130	0.602	0.107	-0.022	0.012	0.072	-0.069	0.013	-0.062	-0.021	-0.048	0.093	-0.089	-0.106
123	0.017	-0.165	[illegible]	0.076	0.050	-0.024	0.076	0.023	0.077	-0.126	-0.335	-0.090	0.036	-0.119	-0.059
124	-0.033	0.001	-0.019	0.063	-0.156	0.005	-0.018	-0.149	-0.153	0.062	0.317	0.173	-0.040	-0.048	0.092
125	-0.002	0.053	0.062	-0.014	-0.042	0.024	-0.010	0.027	-0.160	0.163	0.036	0.054	-0.040	-0.141	-0.033
126	0.256	-0.023	0.550	-0.116	-0.013	0.019	-0.043	0.008	-0.361	0.116	0.007	0.155	-0.075	0.224	0.018
127	0.033	0.646	0.035	0.117	-0.167	0.040	-0.037	-0.146	-0.205	0.070	0.003	0.203	-0.042	0.002	0.082
128	-0.129	0.197	-0.058	0.032	0.178	0.001	-0.693	0.039	-0.244	-0.013	0.048	-0.037	0.031	0.002	-0.015

H (3) (continued)

129	-0.121	0.111	-0.024	0.162	-0.214	0.132	-0.085	-0.004	-0.215	0.047	-0.005	0.030	-0.086	-0.016	0.049
130	-0.172	0.066	-0.049	0.038	0.156	-0.036	0.014	-0.062	0.044	0.028	-0.030	-0.044	0.308	-0.049	-0.370
131	-0.025	0.401	0.265	-0.002	0.262	-0.063	0.262	-0.003	0.148	-0.119	-0.047	-0.172	-0.023	-0.027	-0.070
132	0.514	0.009	0.014	-0.254	-0.023	-0.005	-0.073	0.213	0.146	0.054	0.010	-0.115	0.162	-0.023	0.007
133	-0.046	-0.022	0.306	-0.071	-0.074	0.314	-0.097	0.106	-0.375	-0.063	-0.003	0.021	-0.043	0.025	0.324
134	-0.214	-0.174	-0.074	-0.096	-0.177	-0.003	-0.129	0.031	-0.366	-0.076	0.025	-0.142	0.269	0.023	0.125
135	0.097	-0.096	-0.027	-0.045	0.015	-0.012	0.041	0.100	0.030	-0.032	0.189	0.092	0.327	0.047	0.166
136	-0.006	-0.144	-0.113	-0.064	-0.049	-0.074	-0.061	0.177	0.084	0.095	0.088	-0.173	0.033	0.032	0.156
137	0.161	-0.034	0.024	-0.172	0.474	-0.119	0.021	-0.013	0.166	-0.009	0.035	-0.064	-0.118	0.072	0.195
138	-0.242	0.018	-0.111	0.374	-0.047	-0.152	-0.019	-0.073	-0.107	0.046	0.021	0.109	0.048	0.037	0.016
139	0.056	-0.022	-0.365	-0.014	0.065	-0.025	0.416	-0.027	-0.058	0.023	-0.077	-0.204	0.001	-0.006	0.104
140	0.024	0.016	0.057	0.248	0.015	-0.111	-0.176	-0.037	-0.134	-0.044	0.373	-0.130	-0.055	0.013	-0.054
141	-0.041	-0.132	0.401	-0.114	0.123	-0.167	0.009	0.027	-0.020	-0.010	-0.002	0.072	-0.012	0.023	0.045
142	-0.113	0.133	-0.177	-0.034	0.170	0.165	0.012	-0.050	-0.043	0.013	-0.146	0.071	0.032	-0.033	-0.568
143	0.143	-0.056	0.022	-0.006	0.123	-0.074	-0.027	0.133	0.234	-0.025	0.010	-0.191	-0.038	-0.037	-0.133
144	0.013	-0.105	0.009	-0.151	0.171	0.473	-0.159	0.117	-0.061	-0.048	0.042	0.041	0.095	0.029	-0.043
145	0.013	-0.051	0.325	0.306	0.172	-0.143	-0.064	-0.011	0.227	0.117	-0.058	0.056	0.046	-0.013	-0.113
146	-0.163	-0.095	-0.093	-0.207	-0.042	-0.043	0.011	0.109	0.024	-0.047	0.001	-0.042	0.057	0.001	-0.115
147	0.007	-0.173	-0.066	0.265	0.203	0.093	-0.247	0.042	0.106	-0.045	0.166	0.026	-0.075	-0.063	-0.153
148	0.193	-0.013	0.049	-0.110	0.096	-0.049	-0.018	0.063	0.063	0.151	0.162	0.032	-0.038	0.011	0.379
149	-0.014	0.037	0.018	-0.029	0.070	0.084	0.092	-0.035	-0.112	0.042	0.152	0.070	-0.016	0.005	0.336
150	0.132	-0.057	0.311	-0.022	0.017	0.031	0.349	-0.047	0.033	0.024	-0.014	-0.038	-0.038	-0.006	0.147
151	-0.040	-0.074	-0.315	-0.050	0.030	-0.071	-0.012	0.064	0.044	0.021	0.292	-0.005	-0.022	0.011	0.357
152	-0.064	0.144	0.134	0.051	0.049	-0.196	-0.014	0.006	0.234	-0.212	0.055	0.034	0.030	0.087	-0.178
153	-0.107	0.015	-0.023	0.466	-0.063	-0.123	-0.013	0.140	0.244	0.156	-0.037	-0.047	-0.057	-0.043	0.040
154	-0.044	0.030	0.074	0.672	-0.321	-0.185	-0.085	-0.177	0.140	-0.097	-0.027	0.095	-0.023	0.016	0.033
155	-0.132	-0.075	0.265	0.130	-0.159	-0.154	-0.034	0.040	0.067	0.205	0.069	0.069	0.012	-0.010	-0.093
156	-0.045	-0.016	0.125	-0.122	0.065	-0.129	-0.008	-0.027	0.032	0.404	-0.002	0.038	0.011	0.017	-0.038
157	-0.067	-0.107	-0.006	0.005	-0.045	-0.163	-0.025	0.076	0.224	0.137	0.012	0.051	0.039	0.027	0.393
158	-0.037	0.002	-0.029	0.105	-0.028	-0.043	-0.321	-0.072	-0.034	0.029	-0.025	0.028	0.008	0.011	0.015
159	-0.010	0.060	-0.007	-0.025	-0.074	-0.021	-0.010	0.022	0.097	-0.004	-0.001	-0.045	0.001	-0.014	0.063
160	0.012	-0.096	-0.024	0.059	0.027	-0.019	-0.047	-0.039	0.142	-0.041	-0.028	0.068	-0.059	0.008	-0.003
161	0.214	0.035	0.003	-0.056	0.086	-0.029	0.003	-0.025	-0.078	-0.078	0.031	0.090	-0.027	-0.019	0.059
162	0.032	0.524	0.074	0.089	-0.013	-0.060	-0.020	0.004	-0.167	-0.012	0.049	0.197	0.005	-0.053	0.068
163	0.013	0.012	0.016	-0.008	-0.024	0.033	0.345	0.046	0.405	-0.024	-0.035	0.095	0.074	0.040	-0.038
164	-0.023	0.023	0.013	-0.058	-0.007	0.543	0.154	0.047	0.103	-0.004	-0.006	0.033	0.028	-0.030	-0.018
165	-0.013	-0.092	-0.012	-0.019	-0.009	0.133	0.122	0.100	0.131	-0.110	0.308	0.002	0.041	0.012	0.134
166	0.152	-0.113	-0.003	-0.042	-0.101	-0.095	0.177	0.031	0.174	-0.054	-0.010	-0.091	-0.111	0.021	0.178
167	-0.192	-0.037	-0.344	-0.145	-0.077	-0.005	-0.034	-0.020	0.033	-0.079	0.140	0.065	0.018	0.010	0.165

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	0.023	-0.242	0.043	0.165	0.101	0.032	-0.176	0.103	-0.192	-0.026	0.140	0.431	-0.153	-0.206	-0.146
2	-0.012	-0.230	-0.194	0.012	-0.197	0.061	-0.396	0.025	-0.097	-0.093	0.085	-0.048	-0.139	-0.216	-0.124
3	-0.119	-0.046	-0.263	-0.076	-0.235	-0.065	-0.674	0.018	-0.147	-0.152	0.050	-0.133	-0.220	-0.110	0.130
4	-0.064	0.033	-0.035	-0.015	0.052	0.057	0.003	0.064	-0.045	0.109	0.234	-0.017	-0.064	0.055	-0.075
5	0.027	0.235	-0.013	-0.062	-0.064	-0.039	-0.745	-0.206	0.563	-0.344	-0.035	-0.059	-0.136	-0.113	0.001
6	-0.017	-0.429	-0.001	0.364	0.063	0.043	0.022	0.014	-0.051	0.004	0.166	0.084	0.070	0.102	-0.067
7	-0.043	-0.143	-0.004	0.013	-0.240	-0.032	0.031	0.079	0.181	-0.030	0.193	-0.193	-0.087	-0.145	-0.116
8	0.124	0.021	-0.025	0.172	-0.334	-0.025	-0.867	0.030	-0.136	0.013	0.132	-0.174	0.120	0.129	0.035
9	-0.023	0.264	-0.124	0.037	-0.083	-0.017	-0.204	0.040	0.023	0.116	0.147	0.032	0.046	0.076	0.354
10	-0.049	-0.005	-0.044	0.095	-0.115	-0.046	-0.060	0.062	0.259	0.055	0.190	-0.125	0.127	-0.084	0.185
11	-0.092	-0.072	0.052	0.114	0.196	-0.097	0.223	0.127	0.117	0.317	0.527	-0.226	0.365	-0.000	0.333
12	-0.009	-0.117	-0.107	0.156	0.387	-0.179	0.049	0.046	0.175	0.014	0.431	0.019	0.155	-0.105	0.359
13	0.022	-0.237	0.097	-0.037	0.026	0.017	-0.216	0.199	0.034	-0.012	0.063	0.126	-0.192	0.014	0.033
14	-0.035	0.056	-0.092	-0.148	-0.064	-0.057	0.231	-0.039	-0.201	-0.014	0.074	-0.039	-0.070	-0.477	0.133
15	0.033	-0.123	-0.123	0.274	-0.075	0.011	-0.095	0.037	-0.115	0.146	0.157	-0.135	0.064	-0.107	0.723
16	0.046	-0.097	-0.313	0.028	-0.187	0.062	0.225	0.036	0.271	0.095	0.021	-0.003	-0.023	-0.053	0.103
17	-0.022	0.055	-0.063	0.077	-0.101	0.015	0.032	0.031	0.017	0.005	-0.030	0.038	-0.308	-0.016	-0.331
18	0.064	-0.053	0.023	0.037	0.014	0.034	-0.010	0.035	0.031	-0.020	-0.091	0.095	0.089	-0.010	-0.053
19	-0.082	-0.433	-0.377	-0.224	0.036	0.066	-0.101	0.021	-0.173	-0.043	0.120	-0.278	-0.293	-0.136	0.165
20	0.139	-0.035	0.021	0.054	-0.072	0.021	-0.047	0.332	-0.223	-0.070	-0.136	0.621	-0.311	-0.010	-0.013
21	-0.032	-0.174	-0.377	0.008	-0.227	0.064	-0.325	0.093	-0.165	-0.101	0.175	-0.100	-0.064	-0.156	-0.223
22	0.036	-0.032	-0.337	-0.014	-0.153	0.111	-0.172	0.044	-0.221	-0.154	0.104	0.053	-0.068	-0.038	0.030
23	0.043	0.027	0.032	0.015	0.197	0.032	0.234	0.033	-0.100	-0.022	0.769	-0.020	0.235	0.047	-0.334
24	-0.036	-0.126	-0.094	-0.005	-0.218	-0.104	0.043	-0.021	0.214	0.072	0.668	0.111	0.302	-0.081	0.100
25	-0.026	-0.274	-0.111	-0.010	-0.276	-0.097	0.157	0.052	0.129	0.023	0.625	-0.002	-0.335	-0.059	0.023
26	0.105	0.039	0.539	-0.020	0.027	-0.007	-0.267	-0.030	0.062	0.001	0.020	0.019	-0.057	-0.025	0.030

H (3) (continued)

27	0.041	0.032	0.067	0.032	0.359	0.026	-0.291	0.031	-0.034	-0.012	0.063	-0.041	0.069	0.016	0.004
28	-0.124	0.030	-0.142	-0.084	-0.279	0.011	-0.410	0.045	0.035	0.014	0.219	0.111	0.378	0.483	0.011
29	0.133	0.197	-0.121	0.122	-0.242	0.125	-0.496	0.064	-0.227	-0.021	0.079	-0.011	0.061	0.232	-0.016
30	0.164	0.178	0.045	0.020	-0.018	0.072	-0.053	-0.050	-0.091	-0.060	0.653	-0.020	0.367	0.076	-0.037
31	0.035	0.043	0.404	0.026	0.066	0.047	-0.118	-0.010	-0.019	-0.003	0.035	0.092	0.065	0.093	0.041
32	0.028	-0.073	-0.041	0.001	-0.287	-0.026	-0.141	0.136	-0.111	-0.025	0.259	0.492	-0.017	0.123	-0.059
33	0.083	0.241	-0.017	0.137	0.271	-0.009	-0.217	0.048	-0.079	-0.020	0.270	0.547	0.173	0.129	0.181
34	0.014	-0.031	-0.082	0.008	-0.009	0.031	0.087	-0.068	-0.037	-0.029	0.916	0.087	0.509	-0.040	0.035
35	0.026	0.057	0.023	-0.056	0.050	-0.187	-0.027	0.054	-0.045	-0.113	0.312	-0.194	0.112	0.032	0.263
36	-0.055	-0.004	0.021	-0.040	-0.113	-0.027	0.026	0.067	0.034	-0.013	-0.019	0.054	0.020	0.028	0.025
37	0.003	-0.012	-0.004	-0.040	-0.027	0.011	0.013	-0.012	-0.015	0.015	0.032	0.000	0.063	0.008	-0.048
38	-0.036	0.048	-0.019	-0.005	0.061	0.013	-0.015	-0.011	0.090	-0.144	-0.143	0.024	-0.196	-0.039	0.075
39	0.001	-0.171	-0.081	-0.086	-0.301	-0.001	-0.261	0.040	-0.091	-0.150	0.542	-0.023	-0.247	0.046	0.040
40	-0.010	-0.694	-0.067	-0.113	0.016	-0.054	-0.045	0.063	-0.205	-0.026	0.201	0.008	-0.033	-0.081	0.181
41	0.073	-0.380	-0.159	-0.032	-0.315	-0.057	-0.020	0.076	0.151	0.021	0.138	0.213	0.358	-0.115	0.147
42	-0.003	-0.375	0.063	-0.139	0.116	-0.065	0.059	-0.000	-0.226	-0.021	0.063	-0.010	-0.028	-0.055	0.158
43	-0.074	-0.029	-0.292	-0.132	-0.249	-0.012	0.115	-0.033	0.177	-0.076	-0.240	0.232	-0.112	0.053	0.309
44	0.059	-0.246	0.172	0.101	0.536	-0.001	-0.113	0.018	-0.184	-0.037	-0.086	0.207	-0.259	-0.089	-0.126
45	-0.053	-0.136	0.093	-0.026	0.159	-0.013	0.270	-0.011	0.047	-0.044	0.135	0.057	-0.039	-0.116	-0.122
46	0.003	-0.116	0.037	-0.140	0.087	0.070	0.082	-0.030	0.063	-0.010	0.046	-0.115	0.054	-0.036	-0.043
47	-0.034	0.148	-0.053	-0.073	0.025	0.025	-0.294	-0.032	-0.010	-0.044	0.016	-0.204	-0.074	-0.034	0.021
48	-0.001	0.094	0.114	-0.091	-0.042	0.022	-0.148	0.004	0.198	0.067	0.264	-0.045	0.118	-0.109	0.050
49	0.009	-0.203	-0.001	-0.064	0.131	-0.100	0.119	-0.102	0.066	0.032	0.234	-0.019	0.056	-0.146	0.020
50	0.004	0.018	-0.058	-0.052	0.211	-0.022	0.097	-0.259	-0.079	0.022	0.189	-0.141	0.094	0.016	-0.022
51	0.017	0.138	0.064	0.036	0.124	-0.016	0.115	0.028	-0.025	0.028	-0.111	-0.035	0.163	-0.002	0.026
52	-0.034	-0.130	0.050	-0.021	0.105	-0.043	0.063	0.166	0.149	0.032	0.201	-0.049	0.215	0.130	-0.003
53	0.071	-0.063	-0.304	0.075	0.016	-0.102	-0.041	-0.125	-0.170	0.053	0.024	-0.131	-0.157	0.015	-0.180
54	-0.054	-0.041	0.050	0.041	0.199	-0.038	0.243	0.044	-0.035	0.002	-0.098	0.034	-0.268	-0.004	-0.110
55	-0.034	-0.090	0.093	0.006	0.193	0.020	-0.298	-0.052	-0.008	0.015	-0.214	0.240	0.008	0.110	0.150
56	-0.002	-0.015	0.116	0.012	0.258	-0.012	-0.297	-0.034	-0.083	0.022	-0.245	0.250	-0.097	0.042	0.105
57	-0.041	-0.127	0.045	-0.028	0.041	-0.007	-0.027	-0.094	0.077	-0.008	0.021	0.191	0.138	-0.067	-0.006
58	-0.014	-0.141	0.083	-0.076	-0.195	-0.001	0.221	0.003	-0.029	-0.015	-0.236	0.010	0.019	-0.037	0.009
59	0.057	-0.168	0.020	0.026	-0.011	-0.704	0.092	-0.048	-0.226	-0.042	0.155	-0.254	-0.085	-0.011	0.005
60	-0.076	0.212	-0.153	-0.027	-0.185	-0.338	-0.045	0.177	0.215	0.013	-0.158	0.016	0.201	0.109	0.047
61	-0.041	0.080	0.010	0.035	-0.031	0.053	0.174	-0.020	0.033	-0.071	-0.030	-0.017	0.252	0.034	0.020
62	-0.051	-0.438	-0.134	0.065	0.002	0.006	0.079	-0.089	-0.031	-0.015	0.205	0.133	0.443	-0.072	0.020
63	-0.058	-0.127	0.105	0.171	0.322	-0.037	0.047	-0.099	-0.104	0.042	0.192	-0.195	0.081	-0.116	-0.019
64	-0.035	-0.033	0.008	0.073	0.061	0.026	0.051	0.031	-0.059	0.137	-0.008	0.035	0.013	-0.052	0.023
65	-0.060	-0.070	-0.067	-0.017	-0.158	0.071	0.136	-0.051	0.058	-0.065	-0.091	0.107	-0.033	-0.006	-0.053
66	0.053	0.040	-0.085	-0.173	-0.170	-0.021	-0.012	0.000	0.063	0.072	-0.208	0.214	-0.223	0.011	0.040
67	-0.061	-0.042	-0.023	-0.036	-0.074	-0.016	0.074	-0.038	0.090	0.021	-0.119	0.186	0.022	0.001	0.001
68	0.025	-0.024	0.001	0.048	-0.009	-0.004	-0.001	-0.018	-0.040	-0.071	-0.038	0.032	-0.023	-0.009	-0.037
69	0.017	-0.022	-0.004	0.069	0.029	0.116	0.015	0.219	-0.006	0.010	0.107	0.114	0.245	-0.015	-0.091
70	-0.012	0.044	0.042	0.027	0.194	0.063	0.023	-0.157	0.069	0.162	0.124	0.073	0.278	0.089	-0.051
71	-0.021	-0.009	0.089	0.058	0.017	-0.025	0.287	0.006	-0.004	0.019	-0.156	0.053	-0.006	-0.032	-0.046
72	0.060	0.054	-0.011	0.061	-0.049	-0.021	0.096	0.043	0.042	-0.036	-0.144	0.111	-0.032	0.081	-0.059
73	0.045	0.110	0.033	0.037	0.076	0.048	-0.037	0.105	-0.083	-0.097	-0.013	-0.242	-0.087	-0.022	0.069
74	0.012	0.011	0.044	-0.026	0.020	0.059	0.066	0.552	-0.019	-0.056	-0.164	0.040	-0.055	0.091	0.015
75	-0.007	-0.033	0.100	0.073	0.240	-0.055	-0.239	0.328	-0.073	-0.019	0.032	-0.254	0.144	-0.036	0.207
76	0.020	-0.051	-0.003	0.032	-0.018	0.026	0.014	0.758	0.017	0.023	0.075	0.009	0.081	-0.072	0.024
77	0.042	0.058	0.272	-0.049	-0.090	0.025	-0.106	0.179	0.031	-0.038	-0.120	-0.104	0.063	-0.011	0.049
78	-0.025	0.012	-0.053	-0.115	-0.133	0.028	0.069	0.544	0.131	-0.007	-0.158	0.120	-0.123	-0.019	-0.015
79	0.020	-0.038	0.062	-0.055	0.014	0.003	-0.213	0.036	-0.021	-0.031	-0.063	-0.076	0.037	-0.034	0.191
80	0.017	0.010	0.020	0.052	0.075	-0.027	0.015	0.069	0.022	-0.000	-0.058	0.067	0.002	-0.047	0.046
81	-0.065	0.010	-0.022	-0.407	-0.237	-0.016	-0.040	-0.040	-0.206	0.100	0.059	0.058	0.024	-0.021	0.029
82	0.005	-0.002	-0.013	-0.421	0.022	-0.029	-0.321	-0.038	0.062	0.052	0.200	-0.055	0.409	0.072	-0.126
83	0.024	-0.159	-0.038	-0.056	-0.054	0.054	0.226	0.077	0.066	-0.066	0.012	0.099	-1.046	-0.192	-0.182
84	-0.003	-0.215	-0.089	-0.136	-0.232	-0.256	0.098	-0.011	-0.079	0.021	0.090	0.144	0.187	-0.139	-0.073
85	0.067	-0.094	0.019	-0.210	-0.173	-0.186	-0.011	0.062	-0.145	0.013	0.164	-0.094	0.206	-0.048	0.035
86	-0.021	-0.103	-0.073	-0.100	-0.126	0.120	-0.049	-0.022	0.140	-0.085	-0.092	0.216	0.107	-0.056	-0.043
87	0.020	-0.177	-0.110	-0.522	-0.204	0.049	0.062	-0.141	-0.118	-0.063	-0.032	0.101	-0.252	-0.169	-0.073
88	0.057	-0.148	0.101	-0.130	0.210	-0.146	-0.059	0.005	0.419	0.066	0.146	0.009	0.398	-0.018	-0.049
89	-0.074	-0.079	0.065	-0.106	0.307	0.109	-0.153	-0.063	-0.121	0.072	0.164	-0.198	-0.264	-0.169	0.062
90	-0.041	-0.056	-0.037	0.163	0.246	0.186	-0.068	0.037	0.193	0.013	0.083	0.163	0.303	-0.065	-0.013
91	-0.040	0.067	-0.069	-0.156	-0.129	-0.036	0.094	0.024	0.105	-0.086	-0.270	-0.183	-0.037	0.010	0.056
92	0.056	0.137	0.044	0.055	-0.066	-0.009	0.256	0.044	0.055	0.009	-0.164	-0.154	0.058	0.050	-0.010

H (3) (continued)

93	-0.072	0.172	-0.096	-0.012	0.201	-0.027	-0.132	0.162	-0.070	-0.043	0.026	-0.274	0.304	0.015	0.068
94	0.025	-0.152	-0.052	0.059	0.053	0.044	0.134	-0.080	-0.028	-0.018	-0.067	0.197	0.000	-0.035	-0.036
95	-0.046	-0.152	0.040	0.110	0.076	-0.087	0.238	-0.033	0.052	0.030	0.234	0.187	0.009	-0.172	-0.044
96	0.053	-0.042	0.142	0.210	0.254	0.034	0.185	-0.114	-0.024	-0.027	0.213	0.105	0.308	-0.182	0.081
97	-0.032	0.112	0.103	-0.027	0.119	0.076	0.005	0.073	0.056	-0.003	0.194	-0.128	0.170	-0.031	-0.038
98	0.019	0.046	0.032	-0.023	0.044	-0.064	0.133	-0.013	0.107	0.014	0.203	0.175	-0.009	-0.170	-0.176
99	-0.045	0.179	-0.336	-0.135	-0.224	-0.138	-0.368	0.003	0.404	-0.083	-0.140	0.038	-0.045	-0.028	0.112
100	0.019	-0.026	-0.069	0.093	0.115	-0.032	-0.014	-0.103	0.137	-0.046	-0.081	0.472	-0.061	0.127	0.014
101	0.110	-0.123	-0.153	-0.054	-0.019	-0.123	0.120	0.019	0.511	0.083	0.165	0.134	-0.014	-0.035	-0.048
102	-0.033	-0.221	-0.080	-0.069	0.082	0.053	0.067	0.109	0.006	-0.003	0.144	-0.059	-0.174	0.412	-0.061
103	-0.009	0.065	0.049	-0.013	0.009	0.030	0.197	-0.015	0.061	-0.009	-0.240	-0.060	0.093	-0.011	0.064
104	-0.011	0.077	-0.003	0.177	0.835	0.149	-0.352	-0.055	-0.145	-0.071	-0.091	0.115	-0.018	0.016	0.172
105	-0.077	-0.040	0.043	0.108	0.093	-0.033	0.164	0.040	-0.037	-0.025	0.194	-0.131	0.093	-0.060	-0.056
106	0.004	0.027	-0.147	0.083	0.095	-0.144	-0.349	0.059	0.085	0.075	0.179	-0.108	0.090	0.152	0.072
107	-0.023	0.103	-0.035	-0.057	-0.018	-0.014	0.113	0.023	0.044	-0.113	-0.040	-0.054	0.221	0.051	0.210
108	0.011	-0.069	-0.111	-0.166	-0.091	-0.174	-0.133	-0.065	-0.220	0.029	0.019	-0.017	-0.227	-0.176	0.015
109	-0.034	-0.035	-0.003	0.011	0.066	-0.186	0.160	-0.078	0.055	-0.050	-0.117	-0.067	-0.673	-0.086	0.052
110	-0.003	-0.010	-0.075	-0.050	-0.134	-0.783	0.016	-0.005	-0.043	-0.056	-0.003	-0.173	0.075	0.051	0.031
111	0.044	0.132	0.023	0.027	-0.075	0.014	-0.022	0.054	-0.036	0.150	0.046	-0.055	0.008	0.035	0.768
112	-0.057	0.040	-0.155	-0.507	-0.300	0.017	0.250	0.032	0.215	-0.017	-0.192	0.038	-0.148	0.139	0.500
113	-0.015	-0.041	0.004	0.030	-0.013	0.027	0.185	0.025	0.137	-0.034	-0.067	-0.025	0.014	-0.001	0.112
114	-0.090	-0.145	0.052	-0.033	0.415	-0.028	0.024	-0.012	0.065	-0.025	0.299	-0.220	-0.446	-0.003	0.136
115	0.073	0.087	0.104	-0.145	0.063	0.003	-0.002	0.062	0.093	-0.042	-0.059	-0.208	0.139	-0.053	-0.016
116	-0.013	0.025	0.026	-0.617	-0.036	-0.024	0.072	-0.013	0.084	-0.016	-0.184	-0.034	0.037	0.132	0.120
117	0.035	0.111	0.060	-0.416	0.260	0.029	0.181	0.048	-0.065	0.117	0.038	-0.034	-0.118	0.055	0.057
118	0.111	-0.166	-0.027	-0.400	0.011	0.064	0.253	-0.010	-0.129	0.005	0.056	0.160	-0.545	-0.091	-0.181
119	0.027	0.120	-0.035	-0.041	-0.067	0.039	-0.121	-0.063	0.102	0.423	-0.229	0.027	-0.197	-0.026	0.211
120	0.014	-0.022	-0.044	-0.099	-0.056	0.027	-0.141	-0.047	-0.003	0.266	-0.286	0.067	-0.267	-0.033	0.027
121	0.002	-0.031	-0.122	-0.056	-0.154	-0.039	-0.198	-0.002	-0.009	0.281	-0.213	-0.056	-0.122	-0.053	0.053
122	-0.034	-0.034	-0.029	0.025	0.034	0.015	0.077	0.073	-0.087	0.100	0.219	0.020	0.125	-0.027	-0.039
123	0.054	0.004	-0.002	-0.025	-0.074	0.000	-0.013	0.034	-0.037	0.366	-0.095	0.032	0.059	0.044	-0.057
124	-0.062	-0.034	0.091	0.007	0.246	0.007	0.262	0.005	-0.128	0.136	0.159	-0.130	0.120	-0.027	-0.030
125	0.035	-0.101	0.027	0.029	0.116	0.104	-0.007	-0.052	-0.051	0.680	0.127	-0.022	0.150	-0.043	0.122
126	-0.047	0.027	-0.025	0.039	0.005	-0.014	-0.236	-0.031	0.017	-0.055	-0.120	-0.063	-0.103	-0.072	0.079
127	-0.062	-0.053	0.095	-0.023	0.193	-0.068	0.026	0.007	-0.066	0.036	0.167	-0.212	0.204	-0.010	-0.034
128	-0.064	-0.033	0.084	0.166	0.309	0.031	0.109	-0.023	0.112	-0.069	0.124	-0.172	0.012	-0.142	-0.014
129	0.020	-0.154	0.154	0.050	0.373	-0.116	0.049	-0.058	-0.203	0.034	0.164	-0.169	0.084	-0.117	-0.117
130	0.003	0.034	0.053	0.059	0.024	0.006	-0.049	-0.041	-0.083	0.021	-0.069	0.087	-0.077	0.053	0.009
131	-0.067	0.015	-0.061	-0.100	-0.165	0.073	0.128	0.068	-0.027	-0.032	-0.128	0.096	-0.043	0.052	0.009
132	0.017	-0.192	0.036	-0.165	-0.125	0.010	0.043	-0.150	0.140	-0.016	0.088	0.088	0.062	-0.010	0.057
133	0.141	-0.036	0.161	0.119	0.348	-0.025	-0.035	-0.044	-0.205	-0.001	-0.060	0.127	-0.180	-0.033	-0.130
134	0.079	-0.156	0.045	0.001	0.095	-0.061	0.072	0.014	0.114	-0.050	-0.097	0.093	-0.142	-0.119	-0.031
135	-0.022	0.220	-0.259	-0.105	0.123	0.035	-0.301	-0.157	-0.122	-0.068	-0.284	0.169	-0.046	-0.052	0.003
136	0.095	0.140	-0.109	-0.031	0.150	-0.045	-0.385	-0.174	0.083	-0.045	-0.259	0.096	-0.179	-0.034	-0.069
137	0.055	0.022	-0.119	-0.107	-0.138	0.053	-0.140	-0.022	-0.066	-0.035	-0.176	0.157	0.004	-0.064	-0.037
138	-0.116	0.200	0.138	0.037	0.254	0.060	-0.340	-0.006	0.028	-0.002	0.207	-0.261	0.022	-0.045	-0.046
139	0.012	0.118	-0.047	-0.097	-0.118	0.047	-0.013	-0.035	0.084	-0.013	-0.193	-0.040	0.076	0.006	0.019
140	-0.045	0.325	-0.046	-0.089	0.070	0.109	-0.338	0.027	0.042	-0.019	0.005	-0.240	0.193	0.040	-0.019
141	-0.070	0.037	0.010	-0.053	0.087	-0.021	-0.144	-0.005	-0.055	-0.065	-0.047	-0.019	-0.065	0.029	0.045
142	-0.016	-0.105	0.095	-0.093	-0.191	-0.168	0.015	0.017	-0.131	-0.066	0.064	-0.070	-0.138	0.032	0.217
143	0.114	-0.073	-0.075	-0.157	-0.265	-0.034	0.170	-0.095	0.307	0.026	0.136	0.244	0.022	0.202	-0.160
144	0.074	0.057	0.173	-0.022	0.202	-0.011	-0.114	-0.001	0.034	0.016	0.036	0.122	-0.057	0.113	0.005
145	0.067	0.125	0.124	0.030	0.037	-0.032	-0.009	-0.111	-0.056	-0.010	0.023	0.172	0.411	0.644	-0.114
146	0.021	-0.133	-0.029	0.014	0.047	0.051	0.216	0.013	0.002	-0.033	-0.071	0.045	-0.804	0.229	-0.092
147	0.054	0.075	0.097	-0.012	0.133	-0.015	-0.062	0.038	0.055	-0.004	-0.053	0.148	-0.093	0.542	-0.061
148	-0.011	0.106	-0.005	-0.003	0.297	0.010	-0.013	-0.109	0.013	-0.038	-0.257	0.045	-0.107	0.355	0.112
149	-0.053	-0.122	0.029	-0.098	0.176	0.003	0.153	-0.006	-0.072	0.030	0.133	-0.055	0.113	0.152	0.020
150	-0.044	0.164	-0.080	-0.011	-0.136	-0.132	-0.025	0.106	0.213	0.004	-0.179	-0.028	0.109	0.050	-0.003
151	-0.034	0.237	-0.183	0.031	0.298	-0.037	-0.126	-0.159	0.037	-0.020	-0.076	0.042	-0.115	0.045	0.054
152	0.029	0.106	0.124	0.009	0.082	0.021	-0.048	-0.115	0.041	-0.132	-0.299	0.307	-0.080	0.170	0.056
153	0.024	-0.012	-0.044	0.049	-0.034	0.001	0.037	-0.134	0.013	0.111	0.093	0.219	0.369	0.189	-0.111
154	0.125	0.141	0.091	0.036	0.153	0.039	-0.031	0.039	-0.083	-0.033	0.004	0.212	0.277	0.202	-0.006
155	0.074	0.140	-0.023	0.013	0.090	0.032	0.139	-0.011	0.072	-0.058	-0.129	0.241	-0.767	0.027	-0.121
156	0.002	0.137	0.120	-0.104	0.226	0.173	0.018	-0.078	0.151	-0.092	-0.267	0.170	-0.286	0.097	-0.009
157	0.047	0.148	-0.077	0.017	0.069	0.014	-0.038	-0.175	0.200	-0.094	-0.271	0.578	-0.173	0.091	0.033
158	0.661	0.004	0.008	0.050	0.019	0.018	-0.022	0.008	-0.016	-0.044	0.129	-0.080	0.114	-0.005	-0.000

H (3) (continued)

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   159      0.475  0.063  0.011 -0.017  0.005  0.062 -0.101 -0.031 -0.021  0.045 -0.084  0.103 -0.086  0.005  0.066
   160      0.568  0.119 -0.045  0.019 -0.087 -0.020 -0.169  0.039  0.073  0.000 -0.028  0.111 -0.028  0.064  0.112
   161      0.464 -0.014 -0.069 -0.008  0.095 -0.099  0.036  0.069  0.058  0.037  0.006 -0.013  0.025 -0.008 -0.030
   162      0.143  0.116  0.094  0.012  0.311 -0.062  0.097 -0.072  0.021  0.173  0.041 -0.157  0.145  0.125  0.023
   163      0.107 -0.128  0.039 -0.051 -0.005 -0.063  0.286 -0.002 -0.392 -0.063 -0.170  0.106 -0.203  0.030  0.077
   164      0.061 -0.176 -0.063 -0.200 -0.105  0.051  0.272 -0.017 -0.119 -0.020  0.059  0.004 -0.024  0.015  0.064
   165     -0.303  0.163 -0.200 -0.157  0.049 -0.008 -0.044 -0.118 -0.064 -0.021 -0.113  0.128 -0.085 -0.005  0.120
   166     -0.078  0.285 -0.149 -0.144 -0.334 -0.166 -0.260  0.021  0.272 -0.033 -0.256  0.061 -0.011  0.056  0.169
   167     -0.093 -0.014  0.059 -0.049  0.260 -0.002  0.116 -0.022 -0.020  0.037  0.046 -0.075 -0.141 -0.055  0.265

 V(FP) WRITTEN ON UNIT 9
 FORMAT USED = (I3,30F9.6)
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H (4)

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          OBLIQUE FACTOR PATTERN  V(FP)

              1       2       3       4       5       6       7       8       9
   1      0.480  -0.123  -0.031  -0.050   0.024   0.025  -0.165  -0.056  -0.413
   2     -0.002  -0.059  -0.031   0.112   0.028   0.316   0.049   0.084  -0.679
   3      0.025  -0.023   0.017  -0.061   0.034   0.664   0.128  -0.006  -0.040
   4      0.803   0.059  -0.184   0.090   0.036  -0.114  -0.041   0.069  -0.105
   5      0.814   0.046   0.176  -0.071  -0.057   0.143   0.036  -0.030   0.134
   6      0.359  -0.020   0.013  -0.013  -0.033   0.001  -0.070   0.029  -0.520
   7     -0.035   0.087   0.017  -0.599  -0.008   0.480   0.013  -0.048   0.003
   8      0.092  -0.013   0.011  -0.675   0.038   0.379  -0.055  -0.014   0.058
   9     -0.049   0.028   0.024  -0.636  -0.037   0.044  -0.138   0.493  -0.094
  10     -0.170  -0.022   0.007  -0.802   0.056  -0.018   0.127   0.170  -0.007
  11     -0.170   0.012   0.276  -0.151   0.172  -0.001   0.069   0.298   0.001
  12     -0.063  -0.047   0.002  -0.088  -0.772  -0.009  -0.050  -0.150   0.034
  13      0.021  -0.161  -0.001   0.042   0.059   0.044   0.038   0.613  -0.040
  14      0.001  -0.021   0.810  -0.067   0.091  -0.048  -0.062  -0.041  -0.329
  15      0.050  -0.001  -0.657  -0.062   0.112   0.026  -0.184   0.000   0.051
  16      0.047   0.023   0.028   0.032  -0.108  -0.019   0.409   0.364   0.068
  17      0.045   0.111  -0.039   0.048  -0.607   0.013   0.083   0.051   0.007
  18      0.070  -0.061   0.013   0.005   0.037  -0.009   0.713  -0.077  -0.026
  19      0.061  -0.023  -0.039  -0.054   0.028   0.050   0.964  -0.003   0.541
  20     -0.047  -0.504  -0.123   0.118   0.013   0.031   0.418   0.053   0.063
  21     -0.065  -0.596  -0.033  -0.150  -0.061  -0.060   0.178  -0.053   0.017
  22      0.055  -0.883  -0.009   0.078   0.055  -0.001  -0.044  -0.040  -0.022

V(FP) WRITTEN ON UNIT 9
FORMAT USED = (I3,9F9.6)
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                    OBLIQUE FACTOR PATTERN  V(FP)

              1        2        3        4        5        6        7        8        9       10       11       12
   1      0.008    0.056   -0.150    0.014    0.020    0.044    0.076   -0.059    0.046    0.076   -0.788    0.079
   2      0.043    0.089   -0.928    0.031   -0.039   -0.011    0.095   -0.032    0.000    0.054   -0.020    0.014
   3      0.053    0.243    0.058   -0.002    0.012    0.118   -0.416    0.554    0.020    0.110    0.064    0.061
   4     -0.083   -0.009   -0.114    0.055    0.024    0.652   -0.001    0.075    0.054    0.143    0.018    0.032
   5     -0.078    0.117    0.053   -0.028   -0.726   -0.003   -0.019   -0.013   -0.053   -0.228    0.011   -0.154
   6     -0.023    0.125   -0.021   -0.038    0.001    0.376   -0.204    0.474   -0.035   -0.039    0.070   -0.033
   7     -0.029    0.100    0.079    0.030    0.036    0.032    0.239    0.101   -0.037   -0.013   -0.039    0.785
   8     -0.064   -0.030    0.037   -0.048   -0.037    0.528    0.042   -0.014    0.085    0.041   -0.019    0.050
   9      0.214   -0.047   -0.294    0.043   -0.040   -0.118    0.001    0.092    0.410   -0.262    0.035    0.081
  10      0.072   -0.076   -0.041    0.041   -0.051   -0.048    0.044    0.556    0.771   -0.087    0.142   -0.051
  11      0.044    0.162   -0.058    0.803    0.023    0.018    0.147   -0.062    0.020    0.058    0.021    0.069
  12      0.059   -0.031   -0.017    0.937   -0.009   -0.024    0.192   -0.055    0.054   -0.113   -0.016    0.015
  13     -0.007   -0.070   -0.023    0.424    0.056    0.115   -0.270    0.023    0.063   -0.073    0.045   -0.155
  14      0.003   -0.062    0.018   -0.020   -0.010   -0.026    0.013   -0.026    0.001   -0.116   -0.990    0.017
  15     -0.156   -0.202    0.104   -0.043   -0.023    0.008   -0.013    0.014    0.008   -0.504   -0.657   -0.093
  16     -0.797    0.001    0.025    0.039    0.015    0.046    0.328   -0.029    0.035   -0.025   -0.023    0.192
  17     -0.840   -0.072    0.043    0.018   -0.035    0.048    0.129    0.022    0.018   -0.290    0.017   -0.069
  18     -0.801   -0.008   -0.041    0.115    0.047    0.006    0.244   -0.028   -0.044    0.107   -0.007    0.195
  19     -0.062   -0.014    0.001   -0.037   -0.041    0.045   -0.053    0.248   -0.249   -0.636   -0.059   -0.012
  20     -0.033    0.001   -0.182    0.054   -0.169   -0.091   -0.314   -0.014   -0.054   -0.606    0.060   -0.216
  21     -0.026   -0.030    0.113   -0.134   -0.108    0.235   -0.190    0.125   -0.060   -0.304   -0.066   -0.227
  22     -0.242   -0.055   -0.043   -0.018   -0.554    0.005    0.103   -0.097    0.064    0.115   -0.045   -0.033
  23      0.087    0.177   -0.026   -0.010    0.025    0.147   -0.575   -0.040    0.013    0.012    0.088    0.021
  24      0.050   -0.088   -0.015    0.012   -0.394   -0.125   -0.154   -0.012   -0.068    0.057    0.025    0.491
  25     -0.044    0.023   -0.834   -0.002    0.025   -0.013   -0.018   -0.111    0.081    0.095   -0.006   -0.055
  26     -0.021    0.190    0.005   -0.074    0.102    0.009   -0.004   -0.066    0.609    0.343   -0.188    0.183
  27     -0.135   -0.056   -0.000   -0.018    0.001   -0.029    0.028   -0.099    0.650   -0.057   -0.170    0.023
  28     -1.060   -0.085   -0.042    0.031   -0.049   -0.024   -0.115   -0.009    0.065    0.260   -0.129   -0.303
  29     -0.784   -0.003   -0.020   -0.006   -0.161   -0.058   -0.216    0.041   -0.040   -0.184   -0.067   -0.176
  30     -0.654   -0.083    0.095   -0.002    0.023    0.039   -0.022    0.115   -0.191   -0.099   -0.052   -0.153
  31     -0.813    0.072   -0.044   -0.025   -0.053   -0.088   -0.290    0.104   -0.114   -0.015    0.036   -0.147
  32      0.021    0.937   -0.040   -0.038   -0.095    0.022   -0.000   -0.002    0.003    0.093    0.062   -0.045
  33     -0.062    0.728    0.021   -0.065   -0.052   -0.009   -0.115    0.020    0.182    0.478   -0.199   -0.098
  34      0.019    1.075   -0.010    0.004    0.013    0.036    0.054   -0.036   -0.016    0.194    0.174    0.083
  35     -0.015    0.133   -0.020   -0.029   -0.024   -0.031    0.203    0.128    0.991    0.076    0.062    0.004
  36     -0.008   -0.055   -0.075    0.031   -0.046   -0.039    0.139   -0.012    0.783   -0.306    0.070    0.001
  37      0.087    0.604   -0.042    0.015    0.090    0.017    0.127   -0.099    0.044   -0.210   -0.033    0.196
  38      0.050    0.111    0.032    0.018    0.001   -0.124    0.177   -0.139    0.101   -0.877    0.014    0.079
  39      0.016   -0.091   -0.010    0.029    0.039   -0.049    0.138   -0.083   -0.034   -0.945   -0.056    0.032

V(FP) WRITTEN ON UNIT 9
FORMAT USED = (I3,12F9.6)
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H (6)

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                    OBLIQUE FACTOR PATTERN  V(FP)

              1        2        3        4        5        6        7        8        9       10       11
   1     -0.023   -0.054   -0.105    0.202   -0.042    0.133   -0.255   -0.006   -0.057   -0.402   -0.174
   2     -0.019   -0.050    0.648    0.138   -0.010    0.333    0.080    0.124   -0.004   -0.011   -0.129
   3     -0.030    0.019    0.027    0.690   -0.055   -0.033    0.167    0.037   -0.041    0.181   -0.168
   4      0.034   -0.049    0.037    0.784   -0.051   -0.015    0.065    0.052   -0.028    0.149   -0.118
   5      0.837   -0.085   -0.003    0.071   -0.003    0.088   -0.069    0.034   -0.041    0.018   -0.121
   6      0.582    0.002    0.001   -0.199   -0.046   -0.071    0.013    0.012    0.056   -0.237    0.163
   7      0.904    0.058    0.015    0.117    0.160   -0.027    0.013    0.017    0.052    0.139   -0.055
   8      1.024    0.083    0.069    0.211   -0.038    0.005    0.069    0.089    0.031    0.294   -0.058
   9      0.930   -0.027    0.014   -0.036   -0.018    0.010    0.066    0.054    0.064   -0.032    0.054
  10      0.983    0.167    0.103    0.248    0.005   -0.002    0.135    0.071   -0.061    0.319   -0.070
  11     -0.061    0.073    0.094    0.118    0.122   -0.114   -0.848   -0.012    0.036   -0.027   -0.156
  12      0.016    0.096   -0.038    0.084   -0.041   -0.026   -0.856   -0.017   -0.037    0.055    0.042
  13      0.027   -0.044   -0.039    0.058    0.426   -0.053   -0.095    0.648    0.054    0.002   -0.101
  14     -0.171    0.214    0.089   -0.091    0.042   -0.017    0.124    0.840   -0.015   -0.061    0.121
  15      0.134    0.066   -0.140   -0.028    0.748    0.006   -0.024    0.054    0.048   -0.002   -0.063
  16     -0.191    0.347   -0.134   -0.126    0.246    0.080   -0.255   -0.011    0.025   -0.059    0.062
  17      0.034   -0.104    0.005    0.058   -0.007    0.651    0.056   -0.053   -0.007   -0.040    0.007
  18     -0.015    0.983    0.102    0.017   -0.023   -0.020    0.216   -0.006   -0.397   -0.048   -0.094
  19     -0.007    0.709    0.070   -0.138   -0.152   -0.108    0.118    0.166   -0.174   -0.019    0.138
  20     -0.078    0.442   -0.164   -0.117    0.019   -0.037   -0.123    0.121    0.006   -0.123    0.101
  21      0.311    0.553    0.312    0.185   -0.031    0.044    0.195    0.111   -0.012    0.187   -0.070
  22     -0.108    0.925    0.112   -0.007   -0.002    0.035    0.202   -0.062   -0.049    0.024   -0.032
  23      0.040    0.083    0.069   -0.013   -0.027    0.014   -0.058   -0.094    0.631   -0.012   -0.045
  24      0.009    0.171    0.035   -0.060    0.080   -0.042    0.009    0.154    0.504    0.032   -0.004
  25      0.055    0.020   -0.001    0.596   -0.053   -0.065    0.147    0.032   -0.049   -0.121    0.197
  26     -0.041   -0.021    0.047    0.196    0.019   -0.012    0.159   -0.049   -0.050    0.108    0.414
  27      0.849   -0.066    0.002   -0.131   -0.034    0.012    0.028    0.022    0.005   -0.178    0.053
  28     -0.048    0.053   -0.012    0.009   -0.040    0.718   -0.127   -0.020    0.038   -0.018   -0.002
  29      0.104   -0.062   -0.122   -0.101    0.012    0.059   -0.230    0.035    0.059   -0.000    0.381
  30      0.006    0.025    0.731   -0.033   -0.046   -0.055    0.161    0.535   -0.073    0.029    0.038
  31      0.041   -0.005    0.401    0.052    0.049    0.035   -0.192   -0.056    0.134    0.110   -0.114
  32     -0.154    0.198    0.146   -0.108    0.771   -0.043    0.131   -0.073    0.019    0.085    0.075

 V(FP) WRITTEN ON UNIT 9
 FORMAT USED = (I3,11F9.6)
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OBLIQUE FACTOR PATTERN V(FP)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	-0.003	-0.000	0.019	-0.035	0.032	-0.093	0.775	-0.037	0.025	-0.032	-0.027	-0.012	-0.041	-0.102	0.005
2	-0.010	0.026	0.075	-0.068	0.029	-0.056	0.018	0.008	-0.027	-0.021	0.006	-0.016	-0.006	0.006	0.000
3	-0.040	0.043	0.072	-0.053	-0.140	-0.059	0.669	0.007	-0.006	-0.035	-0.001	-0.003	0.023	-0.067	-0.006
4	-0.009	0.113	0.076	-0.121	0.019	-0.014	0.902	0.063	-0.046	-0.020	0.024	-0.045	0.016	0.079	-0.010
5	0.019	0.099	0.026	-0.097	0.144	-0.051	0.542	0.130	-0.014	0.016	0.059	-0.043	0.015	0.131	0.016
6	-0.076	-0.085	-0.044	0.059	-0.068	-0.065	0.663	-0.064	0.077	-0.016	-0.031	0.055	0.048	-0.298	0.007
7	-0.121	-0.096	-0.113	0.210	-0.195	-0.117	0.620	-0.150	0.120	-0.001	-0.045	0.118	0.008	-0.451	0.010
8	-0.023	-0.083	-0.140	0.032	-0.084	-0.126	0.172	-0.079	0.049	-0.037	-0.030	0.092	-0.057	-0.071	0.013
9	-0.042	0.050	0.008	0.066	0.950	-0.011	0.139	0.113	-0.009	0.070	0.025	-0.003	-0.045	0.094	0.015
10	-0.057	0.011	-0.019	0.166	1.140	-0.009	0.072	0.018	0.060	0.002	0.004	0.009	0.054	0.038	0.016
11	-0.039	0.021	-0.037	0.132	0.673	-0.034	0.093	-0.047	0.042	0.021	-0.021	0.008	-0.031	-0.005	0.016
12	0.056	0.720	-0.025	-0.018	0.004	-0.054	-0.030	0.007	-0.013	-0.024	-0.002	-0.010	-0.046	0.030	0.006
13	0.056	0.639	0.027	-0.068	0.043	-0.001	0.048	0.078	-0.048	-0.008	0.053	-0.026	-0.014	0.134	-0.003
14	0.006	0.902	0.016	-0.002	0.081	0.002	0.027	0.008	0.068	-0.017	0.006	-0.020	0.004	0.145	-0.027
15	0.031	0.827	0.030	-0.099	0.082	0.015	0.062	0.057	-0.042	0.004	0.048	-0.032	0.019	0.201	-0.019
16	0.051	0.603	-0.063	-0.093	0.030	-0.019	-0.093	0.159	-0.054	0.013	0.092	-0.024	0.014	0.161	0.007
17	-0.039	0.765	-0.044	0.164	-0.023	-0.062	-0.027	-0.162	0.050	0.016	-0.002	0.049	-0.097	-0.134	-0.004
18	-0.005	0.734	-0.052	0.157	0.101	-0.066	-0.035	-0.099	0.056	0.009	-0.013	0.035	-0.040	-0.127	-0.094
19	0.099	0.274	0.012	-0.064	0.072	-0.002	-0.080	0.156	-0.118	0.023	0.090	-0.014	-0.089	0.125	0.009
20	0.007	-0.002	-0.003	0.018	-0.074	0.033	-0.068	-0.013	0.011	0.024	0.051	-0.018	0.066	0.020	-0.003
21	0.013	0.030	-0.034	0.049	0.107	0.050	-0.079	-0.068	0.049	0.017	-0.020	-0.009	0.002	0.030	-0.004
22	-0.030	0.043	-0.007	-0.007	-0.006	-0.064	-0.149	0.039	0.056	0.034	0.001	-0.002	-0.019	-0.155	-0.001
23	-0.099	-0.055	-0.024	0.003	0.055	-0.028	0.020	0.047	-0.005	-0.024	0.004	-0.007	0.039	-0.010	-0.002
24	0.008	0.131	0.032	-0.107	0.038	-0.057	0.163	0.079	0.030	0.015	0.014	-0.057	0.007	0.058	0.003
25	-0.161	-0.044	0.030	0.048	0.068	0.083	0.064	-0.058	0.024	0.024	-0.034	-0.005	0.044	-0.391	-0.028
26	-0.119	-0.018	0.016	0.102	0.018	0.051	0.057	-0.066	0.046	-0.062	-0.027	0.012	0.070	-0.330	-0.026
27	-0.058	-0.003	0.036	-0.051	0.014	0.075	-0.093	0.037	0.018	0.048	0.020	-0.016	0.033	-0.363	-0.020
28	0.003	-0.044	0.025	-0.060	-0.264	-0.089	0.084	0.023	-0.053	-0.068	-0.007	-0.014	0.031	-0.419	0.049
29	0.010	0.055	0.078	-0.135	-0.233	-0.068	-0.018	0.091	-0.001	-0.016	0.013	-0.027	0.016	-0.561	0.060
30	-0.003	0.025	-0.059	-0.170	-0.062	-0.164	-0.017	-0.027	0.106	-0.007	0.041	0.012	-0.003	-0.029	0.013
31	-0.068	-0.058	-0.022	-0.005	0.026	-0.064	-0.035	-0.066	0.001	-0.034	-0.028	-0.010	0.008	-0.093	0.000
32	0.006	0.038	0.040	-0.107	0.024	0.002	0.039	[illegible]	-0.023	0.015	-0.010	-0.044	0.013	-0.520	0.024
33	-0.064	0.016	0.193	0.004	-0.119	0.193	0.025	-0.015	-0.030	0.118	-0.039	-0.011	-0.046	-0.055	-0.028
34	0.183	-0.043	-0.086	-0.025	-0.082	-0.101	-0.001	0.139	-0.022	0.039	-0.007	-0.014	-0.025	-0.016	-0.019
35	-0.070	-0.020	-0.015	-0.001	-0.029	0.073	-0.061	0.079	0.031	0.041	-0.020	0.027	0.056	-0.018	0.007
36	-0.008	-0.005	0.009	0.034	0.413	0.062	-0.065	0.117	0.033	-0.007	-0.010	0.093	0.029	-0.179	0.030
37	0.007	0.006	-0.001	0.003	-0.022	-0.061	-0.081	0.077	-0.005	0.052	-0.027	0.024	0.031	-0.030	0.025
38	0.098	0.111	0.004	-0.037	0.364	-0.002	-0.104	0.008	0.051	0.025	-0.026	-0.024	-0.001	-0.278	0.039
39	-0.025	0.015	-0.043	-0.003	0.315	0.137	-0.046	0.062	-0.123	0.049	-0.023	0.012	-0.143	0.045	-0.010
40	-0.035	-0.029	0.779	0.190	-0.144	-0.054	0.038	0.020	0.156	-0.000	-0.037	-0.000	0.072	-0.059	0.012
41	-0.022	0.009	0.756	0.141	-0.116	-0.054	0.006	-0.010	0.151	-0.022	-0.051	-0.005	0.001	-0.042	0.005
42	-0.000	-0.039	0.776	0.103	-0.106	-0.041	0.035	0.013	0.042	-0.041	-0.052	-0.032	0.085	-0.050	0.017
43	0.050	-0.021	0.661	-0.157	0.090	0.067	0.037	-0.030	-0.138	-0.092	-0.033	-0.081	-0.043	0.029	-0.017
44	0.029	0.014	0.515	-0.146	0.140	0.073	0.009	-0.006	-0.098	-0.068	0.028	-0.038	-0.020	0.057	-0.024
45	-0.048	-0.030	-0.211	-0.033	0.038	0.003	0.042	-0.011	-0.046	0.007	0.009	0.006	0.015	0.036	-0.008
46	0.006	-0.013	0.010	-0.080	-0.055	-0.014	0.029	0.022	-0.073	0.010	0.021	-0.020	0.025	-0.010	-0.001
47	-0.007	-0.001	0.151	-0.013	-0.038	-0.019	0.034	0.025	0.053	0.013	0.062	0.013	0.028	-0.021	-0.001
48	0.001	-0.015	-0.005	0.024	0.049	0.016	-0.028	-0.022	0.081	-0.007	0.025	-0.028	0.076	0.041	0.002
49	0.022	-0.016	-0.051	0.009	0.039	-0.003	-0.031	0.051	0.011	0.019	0.029	-0.006	0.055	-0.024	0.013
50	0.033	-0.034	0.102	-0.089	0.017	0.019	0.056	0.017	0.798	-0.027	0.020	-0.051	-0.014	0.022	-0.003
51	-0.011	0.019	-0.001	0.030	0.159	0.021	-0.027	0.003	0.100	-0.030	0.816	0.027	0.040	0.019	-0.010
52	0.017	-0.029	-0.034	-0.019	-0.052	0.024	0.031	0.074	-0.212	0.059	0.863	-0.031	0.044	0.004	0.092
53	-0.022	-0.013	-0.169	0.004	0.036	-0.035	-0.018	-0.038	0.794	0.029	0.022	-0.103	0.003	0.003	0.005
54	-0.042	-0.066	-0.094	0.027	0.080	0.002	-0.007	-0.014	0.771	0.061	0.169	-0.024	0.022	0.005	-0.007
55	-0.066	0.063	-0.119	0.064	0.001	-0.057	-0.080	-0.137	0.308	0.045	0.082	-0.015	-0.144	0.049	-0.024
56	-0.056	0.074	-0.000	-0.016	0.194	-0.041	-0.035	0.005	0.186	-0.044	0.465	0.100	0.011	0.068	-0.025
57	-0.110	0.011	0.057	-0.030	-0.048	0.654	-0.013	-0.040	-0.060	0.013	-0.021	-0.001	-0.060	-0.072	-0.034
58	0.021	-0.000	0.001	0.022	0.199	0.495	0.006	0.107	0.006	-0.048	0.022	-0.016	0.004	0.017	0.001
59	-0.023	0.001	-0.002	-0.029	-0.011	0.014	-0.001	0.021	-0.023	-0.023	-0.001	-0.001	-0.057	0.013	0.784
60	-0.001	-0.010	0.068	-0.003	-0.065	0.055	0.002	0.029	0.011	0.031	-0.005	-0.000	0.044	0.011	0.760
61	-0.066	-0.069	-0.015	-0.039	-0.038	0.739	0.003	-0.084	-0.025	-0.042	-0.025	0.015	-0.013	0.015	0.137
62	-0.029	-0.035	-0.033	-0.006	0.014	0.642	0.038	0.132	0.015	0.007	-0.015	-0.007	-0.041	0.021	0.300

H (7) (continued)

63	-0.057	0.062	-0.019	0.767	-0.059	-0.051	-0.051	-0.139	0.019	-0.000	-0.036	0.100	-0.003	-0.041	-0.005
64	0.001	0.039	0.010	1.025	[illegible]	0.025	-0.028	-0.007	0.017	-0.020	-0.039	-0.004	0.002	-0.014	-0.001
65	-0.063	0.012	0.014	0.984	0.076	0.014	-0.014	-0.037	0.038	0.000	-0.046	0.027	-0.029	0.038	-0.021
66	-0.029	-0.037	0.044	0.429	0.147	0.035	-0.002	0.038	-0.085	0.019	-0.005	-0.159	0.003	0.131	-0.031
67	0.011	-0.024	-0.024	-0.196	-0.002	-0.020	-0.060	[illegible]	0.081	-0.033	-0.014	0.001	-0.003	0.024	-0.012
68	0.076	-0.063	0.020	0.070	-0.137	0.016	[illegible]	-0.026	0.177	[illegible]	-0.045	-0.037	-0.058	-0.034	0.016
69	0.012	0.021	-0.031	0.071	-0.053	-0.015	-0.039	0.078	-0.122	0.003	0.124	-0.059	-0.014	0.050	0.004
70	0.109	0.034	-0.004	0.519	-0.048	0.029	-0.023	0.076	0.067	0.054	-0.004	-0.135	-0.028	0.020	-0.023
71	0.025	-0.014	-0.025	0.200	-0.112	-0.043	-0.016	0.121	0.028	0.017	0.052	0.029	0.023	-0.038	0.012
72	0.563	0.020	-0.011	0.022	0.036	0.041	0.015	-0.088	0.034	0.022	-0.044	0.031	-0.056	0.066	0.007
73	-0.187	-0.014	0.021	0.003	0.039	0.041	-0.085	-0.125	0.027	0.426	-0.040	-0.024	0.067	-0.035	0.019
74	-0.005	-0.001	-0.044	0.032	0.054	0.063	-0.015	-0.054	0.114	0.632	-0.053	0.014	-0.013	-0.029	0.011
75	-0.079	-0.045	-0.010	-0.006	0.016	0.037	0.004	-0.013	0.028	0.852	-0.043	-0.010	-0.005	0.002	-0.023
76	0.502	-0.009	-0.033	0.125	0.065	0.057	0.004	0.049	0.242	0.496	-0.035	0.036	0.035	0.029	-0.105
77	0.083	0.073	-0.077	0.035	-0.015	-0.057	-0.052	-0.167	-0.015	-0.023	-0.034	-0.032	-0.145	0.065	0.022
78	0.209	0.012	-0.007	0.092	-0.036	-0.020	0.013	-0.014	0.002	0.611	0.057	0.034	-0.160	-0.011	-0.075
79	0.752	-0.016	0.339	0.006	-0.025	0.133	0.044	-0.123	-0.038	-0.202	-0.030	-0.044	0.025	-0.010	0.009
80	0.029	-0.052	0.241	-0.140	0.237	-0.062	-0.056	-0.057	-0.055	0.135	0.033	-0.057	-0.028	-0.063	-0.015
81	1.003	-0.034	0.041	0.016	-0.013	0.007	0.004	0.133	-0.051	-0.058	0.036	0.016	0.010	0.020	0.005
82	0.792	-0.021	0.057	-0.019	0.061	0.096	0.015	0.063	0.002	0.055	-0.019	0.042	0.202	0.012	-0.033
83	0.422	0.019	-0.070	-0.022	0.001	0.046	0.010	-0.257	-0.030	-0.104	0.034	-0.017	-0.168	0.053	0.002
84	-0.017	0.035	-0.264	-0.015	0.235	0.053	-0.063	0.023	-0.026	0.125	0.131	-0.009	-0.063	0.072	-0.044
85	0.117	0.100	-0.002	0.019	0.028	-0.031	-0.039	-0.005	-0.053	0.464	0.159	-0.045	-0.136	-0.092	0.005
86	0.014	0.017	-0.055	-0.022	-0.119	-0.017	-0.010	-0.042	-0.163	0.074	0.526	-0.024	-0.108	-0.016	-0.002
87	0.189	-0.000	0.027	-0.053	-0.192	-0.043	0.049	0.118	-0.036	0.594	0.028	-0.007	-0.123	-0.026	-0.050
88	0.662	-0.025	-0.004	0.038	0.013	0.050	0.026	0.125	0.019	0.425	-0.035	-0.032	-0.008	0.023	-0.041
89	0.241	-0.023	-0.002	-0.048	-0.071	0.093	0.057	-0.190	-0.029	-0.138	0.023	0.011	0.078	-0.030	0.039
90	0.215	-0.031	-0.151	-0.067	0.061	0.066	0.018	-0.004	-0.069	-0.141	0.032	-0.035	-0.029	-0.042	0.017
91	-0.163	-0.059	-0.065	-0.060	-0.064	0.371	0.058	-0.224	-0.024	0.114	-0.004	0.044	0.089	0.035	-0.024
92	-0.134	0.025	0.214	-0.161	0.169	-0.046	-0.053	0.065	-0.107	-0.174	0.002	0.014	0.488	0.051	-0.032
93	-0.193	-0.017	-0.104	-0.149	0.026	0.111	-0.062	-0.265	-0.027	-0.020	-0.042	0.081	0.000	0.052	0.007
94	0.740	-0.042	0.042	0.039	0.025	0.075	0.035	0.142	-0.069	-0.057	-0.016	-0.014	0.406	0.060	0.006
95	-0.058	0.004	0.072	0.001	0.101	-0.008	0.016	-0.067	-0.031	-0.093	-0.039	0.015	0.667	-0.042	-0.043
96	0.338	-0.045	0.041	0.097	0.103	0.084	0.022	0.064	0.013	0.093	-0.030	-0.018	0.726	0.036	-0.036
97	-0.135	-0.032	0.040	0.043	-0.011	-0.025	-0.015	-0.024	0.003	-0.102	-0.025	-0.020	0.866	0.001	0.030
98	-0.021	-0.042	0.061	0.070	-0.132	-0.004	0.003	-0.142	0.025	0.016	-0.009	-0.037	0.359	-0.023	0.043
99	0.123	-0.045	-0.002	0.022	-0.100	0.025	0.004	-0.061	0.055	0.219	-0.046	0.010	0.536	-0.018	0.013
100	-0.020	-0.028	0.014	0.069	0.050	0.026	-0.029	0.239	-0.082	-0.039	0.010	-0.054	-0.125	-0.063	-0.011
101	0.095	0.049	0.011	-0.136	0.048	-0.093	-0.002	0.642	-0.090	-0.160	0.056	0.062	-0.036	0.052	0.057
102	-0.020	0.054	-0.013	-0.103	0.123	-0.057	-0.037	0.578	-0.020	0.043	-0.025	0.054	0.042	0.086	-0.044
103	-0.170	-0.038	-0.054	-0.051	0.101	0.101	0.048	0.283	0.049	0.057	-0.030	0.056	0.019	-0.006	-0.078
104	0.007	0.049	0.010	-0.121	0.045	-0.139	-0.041	0.204	0.028	-0.154	-0.008	-0.035	0.177	0.111	0.037
105	0.075	-0.003	0.042	0.180	0.129	-0.057	-0.018	0.570	0.017	-0.054	0.009	-0.054	-0.107	0.043	-0.007
106	0.027	0.005	0.034	-0.008	-0.042	0.030	-0.032	-0.020	0.052	0.030	-0.032	-0.017	0.132	0.046	0.095
107	-0.170	-0.015	-0.067	-0.117	0.075	0.035	0.006	0.202	-0.145	-0.074	-0.017	0.003	-0.095	-0.048	0.078
108	-0.099	-0.057	0.012	0.014	-0.099	-0.073	-0.021	0.596	-0.031	0.111	-0.009	-0.001	0.186	0.004	0.120
109	0.014	-0.027	-0.012	0.017	-0.108	-0.129	-0.034	0.647	0.005	0.197	0.012	-0.033	0.006	0.042	-0.015
110	-0.053	-0.011	0.093	0.020	0.037	-0.022	-0.006	-0.029	0.046	-0.018	0.020	0.583	0.015	0.055	0.002
111	0.015	-0.011	0.027	-0.067	-0.008	-0.015	-0.010	0.032	-0.043	-0.009	-0.006	0.638	-0.012	0.012	0.006
112	0.009	0.015	0.009	0.095	0.019	0.040	0.018	-0.114	0.085	0.016	0.001	0.482	-0.035	0.021	-0.027

	16	17	18	19	20	21	22	23	24	25	26
1	0.013	-0.007	-0.025	0.036	0.029	0.037	-0.084	-0.121	0.115	0.104	-0.036
2	0.049	0.017	-0.039	0.011	0.093	0.036	0.022	-0.137	0.163	-0.015	0.015
3	0.133	-0.033	-0.042	-0.004	0.018	-0.032	0.020	-0.086	0.144	-0.021	0.071
4	0.044	0.018	0.001	-0.022	0.161	-0.064	0.070	-0.063	0.213	-0.128	0.000
5	-0.132	-0.011	0.069	0.003	0.171	-0.066	-0.125	-0.043	0.126	-0.212	0.011
6	0.127	-0.030	-0.093	-0.012	-0.171	0.045	-0.040	-0.134	-0.013	0.118	-0.071
7	0.165	-0.149	-0.131	0.114	-0.299	0.043	-0.013	0.005	-0.144	0.266	-0.024
8	0.103	-0.164	-0.060	0.240	-0.177	0.033	0.034	0.265	-0.021	0.249	0.051
9	-0.120	-0.045	0.056	0.030	0.079	-0.030	0.012	0.035	0.044	-0.230	-0.095
10	0.003	-0.033	-0.022	0.075	0.028	0.007	0.044	0.005	-0.021	-0.045	-0.266
11	-0.062	-0.031	-0.049	0.067	-0.015	0.060	0.042	-0.027	-0.013	0.125	-0.157
12	-0.052	0.003	-0.050	0.001	0.020	0.155	-0.085	0.005	0.010	0.070	0.011
13	-0.059	0.006	-0.014	-0.036	0.112	0.118	0.023	0.020	0.070	-0.150	0.018
14	-0.063	-0.005	-0.017	-0.025	0.062	-0.026	0.046	0.049	0.008	-0.056	-0.031
15	-0.061	0.021	0.033	-0.044	0.147	-0.023	0.033	0.030	0.094	-0.237	-0.012

H (7) (continued)

16	-0.037	-0.040	0.026	-0.049	0.143	0.025	-0.320	0.063	0.044	-0.325	0.092
17	0.001	-0.003	-0.078	0.027	-0.134	0.010	0.066	-0.073	-0.150	0.212	-0.027
18	-0.003	0.023	-0.021	0.040	-0.112	0.103	0.026	-0.070	-0.128	0.173	-0.129
19	-0.002	-0.069	0.005	-0.047	0.092	0.556	-0.061	0.030	0.094	-0.248	0.189
20	-0.075	0.043	-0.038	-0.010	-0.062	0.867	0.111	-0.057	-0.029	-0.010	0.074
21	-0.044	-0.005	-0.022	-0.016	-0.030	0.905	0.048	0.019	-0.042	0.026	-0.051
22	-0.686	-0.034	-0.065	0.018	-0.000	-0.010	0.052	0.043	-0.144	0.022	0.023
23	-0.043	-0.054	-0.052	-0.059	0.064	-0.028	-0.706	0.035	-0.046	-0.098	-0.013
24	-0.374	-0.037	0.025	0.086	0.145	0.065	-0.088	-0.056	0.020	-0.165	0.012
25	-0.310	0.043	0.091	-0.061	-0.051	-0.015	0.035	-0.100	-0.168	-0.040	-0.297
26	-0.133	0.062	-0.024	-0.001	-0.128	-0.035	-0.048	-0.161	-0.170	0.104	-0.188
27	-0.440	0.054	0.144	-0.022	-0.020	-0.004	0.022	-0.122	-0.109	-0.199	-0.251
28	0.159	-0.033	-0.001	0.072	-0.077	-0.009	0.010	-0.092	0.090	-0.041	0.222
29	0.107	-0.033	0.057	0.067	-0.005	-0.003	-0.025	-0.164	0.170	-0.191	0.186
30	-0.526	-0.024	-0.053	0.060	0.021	0.035	0.104	0.072	0.081	0.140	0.080
31	-0.127	0.022	0.025	0.080	-0.021	0.105	-0.415	-0.077	-0.041	0.098	-0.160
32	-0.150	0.049	0.030	0.021	0.157	-0.001	0.068	-0.209	0.111	-0.122	-0.037
33	-0.027	0.067	0.012	0.493	-0.040	-0.075	0.011	-0.224	0.054	0.061	0.272
34	0.030	-0.047	-0.214	0.756	-0.000	0.012	-0.037	-0.091	0.063	-0.069	0.010
35	-0.130	0.053	-0.153	0.151	-0.070	0.055	0.007	-0.150	-0.010	0.011	0.758
36	-0.079	0.019	-0.116	0.056	0.033	0.091	-0.056	-0.124	-0.036	-0.033	0.214
37	-0.180	-0.070	-0.155	0.100	-0.054	0.017	-0.006	-0.026	-0.051	0.006	0.675
38	0.095	-0.038	-0.073	0.008	0.206	-0.002	-0.009	-0.047	0.051	-0.026	0.189
39	0.045	-0.004	-0.098	-0.049	-0.012	0.043	-0.059	0.105	0.056	0.019	0.582
40	-0.005	-0.060	-0.077	0.076	0.120	0.024	0.045	-0.076	-0.057	-0.005	0.123
41	-0.021	-0.031	-0.069	0.064	0.177	-0.013	0.045	-0.051	-0.056	0.056	0.093
42	0.027	-0.059	-0.038	0.030	0.156	0.028	0.024	0.078	-0.022	-0.016	0.081
43	0.034	0.407	0.066	-0.035	0.458	-0.004	-0.031	0.072	0.039	0.094	-0.184
44	0.017	0.368	0.066	-0.056	0.405	-0.049	-0.046	0.186	-0.003	0.094	-0.220
45	0.045	0.035	0.009	-0.006	-0.031	-0.010	-0.046	0.452	0.014	-0.001	-0.029
46	-0.063	0.021	0.013	-0.014	0.066	-0.031	-0.026	0.849	0.047	-0.067	0.057
47	0.002	-0.053	0.017	0.018	0.043	-0.013	-0.023	0.770	0.015	-0.050	0.030
48	-0.017	0.350	0.019	-0.012	-0.115	0.054	0.027	-0.034	-0.016	-0.039	-0.019
49	0.008	0.394	0.029	0.005	-0.119	0.016	-0.008	-0.035	-0.037	-0.107	0.051
50	0.013	-0.057	0.016	-0.043	0.187	0.023	0.009	0.034	0.192	-0.047	0.022
51	-0.034	0.041	-0.015	0.008	-0.023	0.031	0.011	-0.053	-0.027	0.024	-0.133
52	0.007	0.044	0.033	0.014	0.065	0.100	0.010	-0.155	0.009	-0.168	0.003
53	-0.023	0.104	-0.012	-0.008	-0.016	0.032	0.034	-0.122	0.028	0.031	0.062
54	-0.005	0.143	-0.003	-0.008	0.045	-0.006	0.008	-0.184	-0.060	-0.022	-0.025
55	-0.037	0.406	-0.089	-0.025	-0.168	-0.074	0.051	-0.029	-0.103	0.326	0.128
56	-0.062	-0.057	-0.052	0.052	-0.009	-0.126	-0.010	0.219	-0.031	0.185	-0.125
57	-0.032	0.141	0.156	0.131	-0.056	-0.061	-0.002	-0.153	0.080	0.075	0.193
58	-0.032	-0.016	0.074	-0.168	0.032	0.014	0.050	0.129	-0.004	-0.142	-0.161
59	0.028	0.019	0.050	-0.033	-0.005	-0.009	-0.008	-0.151	0.025	0.024	0.026
60	-0.001	-0.008	-0.039	-0.067	0.007	0.009	0.010	-0.100	-0.015	-0.004	-0.033
61	-0.002	-0.036	-0.090	-0.148	0.014	-0.045	-0.020	0.106	-0.009	0.199	0.201
62	0.006	-0.053	0.003	-0.142	0.014	0.036	-0.015	0.103	-0.022	0.013	0.013
63	-0.003	-0.000	-0.042	0.011	0.126	-0.097	0.029	-0.035	-0.208	0.187	0.059
64	-0.024	-0.001	-0.042	-0.032	-0.111	-0.030	0.021	0.009	-0.175	0.081	-0.033
65	-0.017	0.004	0.011	-0.019	-0.132	-0.013	0.034	-0.010	-0.048	0.100	-0.025
66	-0.012	0.055	0.075	-0.027	-0.162	0.020	0.012	0.014	0.387	-0.097	-0.051
67	-0.055	-0.031	0.049	0.011	0.190	0.013	0.050	0.036	0.645	0.061	0.019
68	0.038	-0.048	0.054	-0.045	0.701	-0.035	0.000	-0.021	0.160	-0.047	0.053
69	-0.010	0.034	-0.001	0.013	0.158	0.122	-0.014	0.002	-0.093	-0.057	0.005
70	-0.002	-0.043	0.002	-0.016	0.441	0.033	-0.016	0.045	0.032	-0.131	-0.042
71	0.042	-0.017	-0.004	0.069	0.560	0.011	-0.021	-0.014	-0.190	-0.148	0.064
72	-0.032	-0.010	0.138	0.040	-0.020	-0.013	-0.010	-0.031	-0.003	0.237	-0.061
73	0.016	0.129	-0.013	-0.140	0.206	0.152	0.113	-0.075	-0.095	0.351	0.031
74	-0.021	-0.066	0.114	-0.054	0.147	0.009	0.058	-0.022	-0.179	0.171	-0.189
75	-0.063	0.017	0.001	-0.063	-0.034	-0.004	0.059	0.001	-0.055	-0.037	-0.209
76	-0.066	0.032	-0.016	0.148	-0.059	-0.053	-0.002	-0.023	-0.073	-0.234	-0.247
77	0.040	0.034	0.199	0.029	-0.043	-0.017	0.018	0.002	-0.035	0.795	0.069
78	-0.007	0.021	0.117	0.002	-0.159	-0.150	-0.010	-0.065	-0.010	-0.197	-0.054
79	-0.055	0.060	0.154	-0.077	0.028	0.065	0.053	-0.050	-0.018	0.034	0.075
80	0.001	0.168	-0.071	-0.144	0.234	0.190	0.094	-0.078	0.041	0.150	0.142
81	-0.008	0.006	-0.121	-0.008	-0.016	-0.010	-0.033	-0.035	0.075	-0.266	0.055

H (7) (continued)

```
 82  -0.032  0.047 -0.023 -0.052  0.035 -0.020 -0.051 -0.032 -0.012 -0.269  0.041
 83   0.050 -0.002  0.403  0.015  0.016 -0.022 -0.013 -0.076 -0.069  0.324  0.123
 84   0.016  0.044 -0.122 -0.132  0.041  0.028  0.059  0.115  0.001  0.101  0.419
 85   0.020 -0.022  0.003 -0.077 -0.001 -0.029  0.070 -0.075  0.063 -0.137  0.042
 86   0.005  0.105 -0.013 -0.017 -0.012  0.025  0.027 -0.117  0.063  0.076  0.097
 87  -0.062 -0.013  0.007 -0.058 -0.094 -0.086 -0.037 -0.076  0.140 -0.327  0.147
 88  -0.018 -0.003 -0.077  0.066 -0.094 -0.040 -0.012 -0.044  0.081 -0.324 -0.074
 89   0.023 -0.166  0.766  0.042 -0.004  0.002  0.022  0.007 -0.119 -0.196  0.089
 90   0.033 -0.013  0.161  0.571  0.003  0.000 -0.055 -0.012  0.006 -0.086 -0.107
 91   0.020 -0.015  0.520  0.134  0.011 -0.066 -0.004 -0.008 -0.124 -0.096  0.061
 92  -0.021  0.039 -0.123  0.065  0.005 -0.054 -0.036  0.064  0.166  0.522 -0.080
 93   0.012  0.077  0.736  0.024 -0.029 -0.009 -0.025 -0.041 -0.002  0.268 -0.030
 94  -0.002 -0.050  0.007  0.080 -0.060 -0.058 -0.016  0.024 -0.007 -0.348 -0.048
 95   0.064 -0.039  0.053  0.123 -0.011 -0.028 -0.062  0.026 -0.010  0.225 -0.034
 96  -0.047  0.026  0.002  0.085 -0.007  0.040 -0.009  0.030 -0.075 -0.303 -0.154
 97   0.029  0.073 -0.304  0.095  0.007  0.043  0.017 [illegible] -0.071  0.091  0.153
 98  -0.015 -0.061  0.424 -0.089 -0.023  0.009  0.012  0.011 -0.180 -0.162  0.225
 99  -0.047  0.033  0.210 -0.002  0.025  0.023 -0.002 -0.020 -0.156 -0.130  0.093
100   0.023  0.155  0.348  0.042 -0.136 -0.012 -0.083 -0.157  0.140 -0.217  0.013
101   0.016 -0.022 -0.057  0.042 -0.032 -0.038 -0.116 -0.027  0.205  0.104  0.124
102  -0.009 -0.010  0.024  0.026  0.045 -0.019 -0.024  0.051  0.017  0.210 -0.110
103  -0.023 -0.087  0.565  0.036  0.063  0.085  0.032  0.024 -0.155 -0.033 -0.175
104  -0.029 -0.033 -0.191  0.054 -0.015 -0.033 -0.024  0.058  0.192  0.586 -0.030
105  -0.015 -0.010  0.138 -0.050 -0.058  0.039 -0.045  0.026  0.010 -0.254 -0.057
106  -0.016 -0.063  0.077 -0.146 -0.006 -0.029  0.016  0.014 -0.083  0.098  0.010
107   0.055  0.145  0.660  0.127 -0.105 -0.047 -0.037 -0.136  0.214 -0.009  0.039
108   0.009  0.099  0.053 -0.027  0.068  0.018  0.008 -0.085 -0.020 -0.240  0.226
109  -0.033 -0.059  0.067 -0.054  0.017  0.021 -0.011  0.021 -0.062 -0.035  0.097
110  -0.004 -0.038  0.006 -0.011 -0.143 -0.004  0.019 -0.003  0.178  0.025  0.033
111   0.018  0.013  0.024 -0.018 -0.023  0.020  0.014  0.001  0.067 -0.106  0.047
112  -0.004  0.004  0.046 -0.003  0.152 -0.033 -0.003  0.029 -0.159  0.109 -0.102

V(FP) WRITTEN ON UNIT 9
FORMAT USED = (I3,26F9.6)
```

H (8)

OBLIQUE FACTOR PATTERN V(FP)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	0.032	0.161	0.048	-0.032	0.123	0.061	-0.121	0.024	0.022	-0.095	-0.644	0.064	0.149	-0.042
2	-0.112	-0.047	-0.226	-0.032	0.045	-0.186	0.514	0.026	0.261	-0.330	-0.160	-0.057	0.048	-0.120
3	0.070	-0.155	-0.171	-0.124	-0.021	-0.131	0.661	0.041	0.137	-0.362	0.081	-0.136	0.035	-0.224
4	0.197	0.646	-0.129	0.076	0.195	0.032	0.196	-0.023	0.234	0.057	0.033	0.092	0.141	-0.133
5	-0.194	0.197	-0.075	0.072	0.115	-0.190	0.083	0.043	0.224	-0.037	0.043	-0.113	0.354	0.091
6	0.100	0.447	-0.157	0.177	0.036	-0.017	0.046	-0.015	0.203	0.055	-0.193	-0.079	0.267	-0.220
7	-0.027	0.263	-0.102	-0.022	0.106	0.014	0.147	-0.030	-0.360	0.053	-0.029	0.044	0.165	0.101
8	0.267	0.461	-0.191	0.051	-0.262	0.002	-0.045	-0.147	-0.350	0.014	0.224	0.035	-0.182	-0.192
9	0.052	0.197	-0.150	0.059	0.002	0.040	-0.027	-0.011	0.109	-0.099	-0.632	0.172	0.136	-0.012
10	0.274	0.144	0.061	-0.027	-0.019	0.012	0.662	-0.061	-0.157	-0.036	0.572	0.033	0.019	-0.038
11	0.662	-0.074	0.006	0.054	-0.044	-0.015	0.774	-0.077	-0.163	0.017	0.087	-0.027	-0.129	0.019
12	-0.062	-0.062	-0.013	0.086	-0.006	-0.022	0.245	-0.106	-0.196	-0.021	0.204	0.052	-0.111	0.149
13	0.369	0.721	0.032	0.040	0.025	0.155	-0.111	-0.161	-0.071	0.144	0.124	0.163	-0.058	-0.130
14	0.124	0.472	-0.107	0.074	-0.120	0.112	-0.012	-0.053	-0.114	0.265	-0.235	0.106	0.113	0.064
15	-0.026	0.170	0.042	0.019	-0.013	0.024	0.329	0.002	-0.162	0.220	-0.110	-0.017	-0.012	0.143
16	0.047	0.271	0.145	-0.075	0.025	0.061	0.216	-0.054	-0.109	-0.062	0.592	0.211	0.070	0.256
17	-0.031	0.354	0.137	-0.043	-0.004	0.051	-0.021	-0.146	-0.144	-0.020	0.137	0.097	-0.057	0.260
18	-0.144	0.445	-0.108	-0.020	0.042	-0.065	0.033	0.025	0.230	-0.106	0.134	-0.119	0.153	0.091
19	-0.314	0.143	-0.047	0.103	-0.054	-0.263	0.018	-0.008	0.208	-0.372	-0.114	-0.074	0.164	0.179
20	0.129	0.625	0.025	0.049	0.002	-0.050	-0.022	-0.172	0.161	-0.104	0.193	0.236	0.122	0.144
21	-0.035	0.552	-0.036	0.011	0.007	-0.014	0.076	-0.047	0.097	-0.121	0.115	-0.007	-0.006	0.136
22	0.429	0.454	-0.061	-0.143	0.039	0.048	-0.107	0.048	0.157	-0.124	-0.016	-0.106	-0.302	-0.276
23	-0.045	-0.211	-0.042	-0.221	0.030	0.045	-0.079	0.132	-0.401	0.083	-0.075	-0.082	0.135	0.281
24	0.155	-0.190	0.041	0.132	-0.156	-0.062	0.057	-0.065	-0.248	-0.340	-0.021	0.130	0.057	0.046
25	-0.472	-0.155	-0.053	0.213	-0.026	-0.065	0.052	-0.093	0.120	0.425	-0.007	0.171	0.158	-0.097
26	0.254	-0.055	-0.795	-0.056	-0.047	-0.021	0.059	0.054	0.062	-0.101	-0.145	-0.090	-0.043	-0.136
27	0.214	-0.064	-0.773	-0.151	-0.078	-0.091	0.017	0.121	-0.236	-0.082	-0.170	-0.129	-0.059	-0.169
28	0.218	-0.093	-0.453	-0.205	0.015	0.027	0.028	0.111	-0.425	-0.011	-0.116	-0.203	-0.142	-0.066
29	-0.672	-0.072	-0.494	-0.201	0.008	-0.024	0.013	0.129	-0.162	-0.098	-0.054	-0.393	-0.044	0.297
30	0.165	0.031	-0.756	-0.039	-0.007	-0.042	0.014	0.024	0.027	-0.119	-0.133	-0.058	-0.041	-0.095
31	-0.656	0.089	0.232	0.032	-0.011	-0.006	-0.021	-0.169	-0.184	0.064	-0.074	-0.044	0.019	0.037
32	0.230	0.035	-0.013	-0.020	-1.122	-0.102	0.059	0.092	-0.164	-0.066	-0.145	-0.098	-0.016	-0.122
33	-0.151	-0.053	-0.115	-0.035	0.636	0.026	-0.005	-0.043	0.120	-0.072	-0.142	-0.085	0.048	-0.256
34	-0.132	0.134	-0.116	0.120	0.643	0.104	-0.056	0.023	0.095	0.134	0.033	0.090	0.095	0.018
35	0.193	0.092	-0.163	-0.579	-0.401	0.095	-0.075	-0.226	-0.109	0.068	-0.140	0.044	0.033	-0.277
36	0.225	0.181	-0.083	0.753	-0.040	0.056	-0.049	-0.179	-0.043	0.131	-0.042	0.145	-0.118	-0.148
37	-0.243	-0.134	-0.059	0.179	0.409	-0.083	0.017	0.356	-0.045	-0.033	-0.050	-0.199	0.077	0.121
38	-0.036	-0.002	-0.113	-0.724	-0.176	0.077	-0.032	-0.035	-0.104	0.104	-0.132	-0.141	0.120	-0.221
39	0.381	-0.007	0.342	0.075	-0.031	0.072	-0.144	-0.025	-0.352	0.097	-0.043	0.005	0.026	-0.159
40	0.214	0.055	-0.114	0.852	-0.029	0.012	0.010	-0.112	-0.360	0.033	-0.071	0.279	-0.057	-0.170
41	-0.045	-0.001	-0.015	0.167	-0.028	-0.024	-0.002	-0.346	-0.547	0.182	-0.050	0.509	-0.173	-0.012
42	-0.312	-0.092	0.064	-0.133	-0.020	-0.155	-0.129	-0.055	-0.617	-0.005	-0.111	0.072	-0.026	0.090
43	0.013	-0.057	-1.592	0.054	0.032	0.047	0.058	-0.022	0.136	-0.020	0.171	0.044	0.014	-0.035
44	-0.168	-0.100	-0.060	-0.112	0.056	-0.068	-0.001	-0.167	-0.439	0.137	-0.024	0.083	-0.111	0.318
45	-0.352	-0.132	-0.007	0.126	0.156	-0.142	0.100	0.350	-0.076	0.025	-0.102	-0.426	0.147	0.075
46	-1.126	-0.014	-0.659	-0.011	0.115	-0.035	-0.026	-0.008	-0.027	-0.105	0.032	-0.158	0.082	0.298
47	-0.721	0.069	-0.022	0.055	0.072	-0.177	-0.057	-0.113	0.054	-0.049	-0.013	-0.468	0.168	-0.176
48	-0.180	0.534	0.117	-0.003	-0.047	-0.113	-0.092	-0.035	-0.155	-0.367	0.097	-0.130	0.054	0.106
49	-0.620	-0.056	-0.021	0.115	0.026	-0.144	0.010	-0.157	-0.054	-0.037	0.034	0.016	0.122	-0.149
50	-0.272	-0.041	[illegible]	0.003	0.037	-0.054	0.047	-0.045	-0.067	0.012	0.025	-0.131	-0.004	-0.022
51	0.215	0.028	[illegible]	-0.115	-0.062	0.060	-0.119	0.174	0.021	-0.008	-0.035	-0.235	0.524	-0.248
52	-0.492	0.134	-0.450	0.192	-0.029	-0.067	0.073	-0.213	0.111	0.099	-0.012	0.007	-0.235	0.191
53	0.125	0.062	0.047	-0.012	-0.047	0.047	0.027	-0.025	-0.326	-0.069	-0.051	0.032	-0.044	-0.311
54	-0.023	-0.132	0.134	0.142	-0.015	-0.159	-0.016	-0.094	-0.101	-0.074	-0.096	0.626	0.035	0.113
55	-0.328	-0.120	-0.007	-0.004	0.105	-0.566	0.092	0.408	-0.103	-0.029	0.021	-0.176	0.051	0.251
56	-0.117	-0.019	0.009	-0.042	-0.011	-0.287	-0.033	0.177	-0.162	-0.042	-0.011	0.062	-0.023	0.103
57	-0.076	-0.030	0.076	0.063	-0.023	-0.591	-0.033	-0.020	-0.180	0.045	-0.057	0.115	-0.043	-0.023
58	-0.066	-0.117	0.040	0.171	-0.029	-0.565	0.022	-0.076	-0.178	-0.044	-0.073	0.207	-0.020	0.017
59	0.160	0.016	-0.061	-0.157	0.002	0.049	0.090	0.849	0.006	0.026	0.001	0.015	-0.015	-0.051
60	0.218	0.014	-0.046	-0.141	0.005	0.057	-0.014	0.295	0.004	0.037	0.028	0.056	0.006	-0.056
61	-0.251	0.187	-0.291	0.203	-0.529	0.017	-0.031	-0.196	0.205	-0.060	-0.098	0.176	0.130	-0.296
62	-0.527	-0.226	-0.354	0.244	-0.205	0.059	-0.065	-0.171	0.156	0.112	-0.205	0.170	0.090	-0.223

H (8) (continued)

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 63   0.100  0.114 -0.714  0.225 -0.162  0.149  0.088 -0.145  0.306  0.060 -0.093  0.223  0.097 -0.307
 64  -0.574  0.136  0.025  0.013 -0.012 -0.073 -0.064 -0.050  0.244  0.013  0.106 -0.377  0.048 -0.003
 65  -0.137 -0.066  0.029  0.078  0.102 -0.041 -0.021  0.052 -0.068 -0.315 -0.012  0.633  0.038  0.174
 66  -0.255  0.007 -0.114  0.140  0.060  0.087 -0.050  0.003 -0.126 -0.040 -0.016  0.611 -0.090  0.003
 67  -0.730  0.028 -0.161  0.094  0.058 -0.091 -0.012 -0.047  0.014 -0.136  0.042  0.369 -0.313 -0.018
 68  -0.415 -0.016 -0.057  0.003  0.032  0.066 -0.069  0.282  0.053 -0.175 -0.009  0.194  0.161 -0.051
 69  -0.641 -0.005 -0.170  0.072  0.038  0.022 -0.050  0.003  0.113 -0.174  0.003  0.081  0.076 -0.251
 70  -0.306 -0.043 -0.023 -0.014  0.062 -0.020  0.049 -0.120 -0.064 -0.070 -0.033 -0.086 -0.074 -0.061
 71  -0.691  0.064 -0.054  0.014 -0.056 -0.051 -0.022 -0.140 -0.186 -0.006 -0.028 -0.021 -0.137  0.176
 72  -1.257 -0.015 -0.494  0.113  0.076 -0.157  0.069 -0.033  0.046 -0.195 -0.119  0.015 -0.041  0.385
 73  -0.683  0.007 -0.025  0.054  0.059 -0.063 -0.019 -0.207 -0.095 -0.041 -0.060 -0.052  0.090 -0.137
 74  -0.787 -0.015  0.107 -0.010  0.104  0.074 -0.011  0.057 -0.055  0.011  0.063  0.035  0.112  0.144
 75  -1.523  0.091 -0.100  0.013  0.133  0.015  0.022 -0.053 -0.039 -0.069 -0.059 -0.146 -0.036  0.540
 76  -0.146 -0.046  0.050 -0.008  0.103  0.009 -0.019 -0.030 -0.243  0.085 -0.043 -0.056  0.097  0.096
 77  -1.391 -0.027 -0.065 -0.013  0.104  0.050 -0.012 -0.048 -0.112 -0.055 -0.073 -0.098 -0.085  0.513

V(FP) WRITTEN ON UNIT 9
FORMAT USED = (I2,14F8.6)
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APPENDIX I

COEFFICIENTS OF CONGRUENCE BETWEEN THE ORTHOGONALLY ROTATED FACTORS FROM EIGHT SECTIONAL FACTOR ANALYSES APPLIED SEPARATELY TO TWO SUBSAMPLES OF JOBS

(N = 707 JOBS PER SUBSAMPLE)

(1) Table 58. Coefficients of Congruence Between the Two Subsamples for 20 Orthogonally Rotated Information Received Factors

(2) Table 59. Coefficients of Congruence Between the Two Subsamples for 10 Orthogonally Rotated Mental Activities Factors

(3) Table 60. Coefficients of Congruence Between the Two Subsamples for 30 Orthogonally Rotated Physical Work Behavior Factors

(4) Table 61. Coefficients of Congruence Between the Two Subsamples for 9 Orthogonally Rotated General Physical Requirements Factors

(5) Table 62. Coefficients of Congruence Between the Two Subsamples for 12 Orthogonally Rotated Representational Work Behavior Factors

(6) Table 63. Coefficients of Congruence Between the Two Subsamples for 11 Orthogonally Rotated Interpersonal Work Behavior Factors

(7) Table 64. Coefficients of Congruence Between the Two Subsamples for 26 Orthogonally Rotated Work Goals Factors

(8) Table 65. Coefficients of Congruence Between the Two Subsamples for 14 Orthogonally Rotated Work Context Factors

I (1)

MATRIX OF COEFFICIENTS OF CONGRUENCE

INFORMATION

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,982	0,195	0,028	0,058	0,012	0,350	0,219	0,565	-0,056	-0,010	-0,327	0,049	-0,012	-0,090	-0,061	0,056
2	0,225	0,974	0,138	0,121	0,091	-0,006	0,066	0,367	-0,023	0,015	-0,276	0,416	0,233	-0,150	0,054	-0,033
3	0,016	0,114	0,977	0,065	0,023	-0,048	0,023	-0,008	0,304	0,027	-0,177	0,012	0,257	-0,063	0,223	0,039
4	0,066	0,127	0,064	0,968	0,026	0,078	0,053	0,117	0,105	-0,024	-0,176	-0,003	0,111	-0,412	0,102	-0,007
5	-0,013	-0,115	-0,021	0,017	-0,943	0,318	-0,209	-0,196	-0,008	-0,247	0,075	-0,076	-0,099	0,01[illegible]	-0,065	0,025
6	0,434	-0,022	-0,038	0,085	-0,001	0,974	0,374	0,438	-0,023	-0,047	-0,279	-0,113	-0,123	-0,035	-0,017	0,119
7	0,244	0,059	0,045	0,016	0,235	0,348	0,944	0,416	-0,018	-0,019	-0,522	-0,100	-0,104	-0,055	0,077	-0,036
8	-0,121	0,404	-0,003	-0,026	0,311	-0,164	0,003	-0,155	0,068	-0,007	0,101	0,107	0,199	0,121	0,273	-0,039
9	-0,015	0,429	0,368	0,057	0,189	-0,163	-0,103	0,053	0,032	0,150	0,041	0,386	0,826	-0,048	0,041	-0,198
10	-0,443	-0,116	0,021	-0,042	-0,372	-0,332	-0,434	-0,653	0,040	0,029	0,242	0,063	0,036	0,072	0,087	0,015
11	-0,019	-0,010	0,015	-0,015	0,031	-0,035	-0,048	-0,020	-0,007	0,917	0,032	-0,000	0,075	0,005	-0,003	0,014
12	-0,050	-0,008	0,363	0,124	0,041	-0,017	-0,022	-0,052	0,927	0,018	0,024	0,007	0,024	-0,023	0,164	-0,018
13	-0,205	-0,198	-0,004	-0,060	0,074	-0,084	0,022	-0,629	0,026	-0,027	0,133	-0,111	-0,110	0,220	0,103	0,044
14	-0,033	0,044	0,236	0,084	0,139	0,045	0,150	-0,078	0,114	-0,037	-0,225	-0,077	-0,035	-0,016	0,908	-0,008
15	0,333	0,304	0,174	0,147	0,114	0,271	0,498	0,457	0,007	-0,040	-0,910	0,025	-0,030	-0,169	0,164	0,102
16	0,026	0,569	0,036	0,008	0,065	-0,137	-0,118	0,059	0,007	0,020	0,023	0,939	0,354	-0,021	-0,093	-0,081
17	0,010	0,580	-0,007	0,018	0,063	-0,093	-0,020	0,089	-0,008	-0,018	-0,006	0,316	0,225	0,034	-0,048	-0,599
18	0,052	0,055	0,059	0,249	-0,076	0,022	0,020	0,092	-0,034	-0,005	-0,185	0,052	0,079	-0,844	0,008	-0,010
19	0,118	0,011	0,017	0,143	-0,023	0,104	0,085	-0,056	-0,087	0,001	-0,145	-0,059	0,186	-0,156	-0,080	0,502
20	-0,037	-0,093	0,044	-0,049	-0,217	-0,023	0,000	-0,240	0,024	0,127	0,086	0,000	-0,160	0,073	-0,081	0,019

	17	18	19	20
1	0,239	-0,116	-0,020	0,108
2	-0,074	0,371	0,266	-0,032
3	-0,048	-0,004	0,343	-0,036
4	0,011	-0,034	-0,016	-0,054
5	-0,196	-0,301	-0,255	0,062
6	0,246	-0,200	-0,126	-0,116
7	0,351	-0,006	-0,015	0,034
8	-0,081	0,918	0,243	0,084
9	-0,121	0,396	0,822	-0,047
10	-0,753	0,105	0,039	-0,044
11	-0,020	0,052	0,049	-0,015
12	-0,035	0,058	0,063	-0,008
13	0,217	0,050	0,009	-0,330
14	-0,057	0,203	-0,029	-0,124
15	0,106	-0,063	-0,007	0,092
16	-0,083	0,210	0,254	0,091
17	-0,014	0,373	0,194	0,084
18	-0,014	-0,081	-0,116	-0,202
19	0,028	-0,087	-0,045	-0,144
20	0,183	0,043	0,110	0,224

I (2)

MATRIX OF COEFFICIENTS OF CONGRUENCE

MENTAL ACTIVITY

	1	2	3	4	5	6	7	8	9	10
1	0,944	0,363	0,663	0,469	0,382	-0,193	-0,649	-0,452	0,810	-0,051
2	0,295	0,842	0,440	0,170	0,401	-0,115	-0,413	-0,934	0,403	-0,172
3	0,562	0,327	0,993	0,447	0,162	-0,095	-0,398	-0,461	0,543	-0,128
4	0,578	0,086	0,478	0,985	0,055	0,019	-0,526	-0,295	0,345	0,064
5	0,821	0,141	0,435	0,412	0,346	0,402	-0,240	-0,110	0,193	-0,273
6	0,202	0,876	0,213	0,065	0,096	0,004	-0,293	-0,258	0,201	-0,007
7	-0,549	-0,047	-0,128	-0,234	-0,175	0,106	0,372	0,048	-0,169	-0,587
8	0,519	0,237	0,246	0,091	0,953	-0,069	-0,074	-0,324	0,237	-0,271
9	-0,268	-0,143	-0,285	-0,554	0,073	0,030	0,826	0,451	-0,210	-0,302
10	0,045	0,101	0,098	0,106	-0,016	0,231	-0,098	-0,134	0,528	0,194

I (3)

MATRIX OF COEFFICIENTS OF CONGRUENCE

PHYSICAL WORK ACTIVITY

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,490	[illegible]	0,126	0,279	-0,010	-0,318	0,052	-0,028	-0,021	0,076	0,041	0,192	0,080	-0,003	0,113	0,485
2	0,055	0,071	0,872	0,151	0,162	-0,119	0,498	-0,007	0,023	0,033	-0,121	0,132	0,003	0,020	0,021	0,054
3	0,345	0,095	0,065	0,948	0,098	-0,157	0,208	0,038	-0,107	0,358	-0,045	0,051	0,154	-0,010	0,034	0,168
4	-0,016	0,945	0,069	0,053	0,040	-0,083	0,053	-0,025	0,029	0,202	-0,045	0,123	0,005	0,086	0,002	0,058
5	0,032	0,176	0,060	0,172	0,817	-0,106	0,092	-0,043	-0,048	0,581	-0,185	0,463	0,182	0,016	0,265	0,116
6	0,062	0,038	0,035	0,116	0,008	-0,230	0,121	0,901	-0,092	0,021	-0,102	0,077	0,078	-0,013	0,212	-0,014
7	0,184	-0,036	0,015	0,198	0,305	-0,096	0,156	0,194	-0,251	0,175	-0,303	0,125	0,311	-0,058	0,314	-0,053
8	0,036	0,025	0,302	0,266	0,157	-0,033	0,917	0,079	0,006	-0,000	-0,069	0,046	0,076	-0,004	0,104	0,020
9	0,187	0,066	-0,016	0,195	0,020	-0,439	0,035	0,036	-0,138	0,102	-0,202	0,118	0,256	-0,021	0,195	0,432
10	0,082	0,100	-0,000	0,263	0,148	-0,111	0,079	0,073	-0,227	0,662	-0,277	0,167	0,131	-0,014	0,206	0,092
11	0,091	0,025	0,232	0,077	-0,031	-0,353	0,051	-0,020	0,066	0,006	-0,143	0,038	0,010	-0,086	0,025	0,205
12	0,143	0,094	0,070	0,109	0,008	-0,598	0,024	0,090	0,035	-0,041	-0,027	0,267	0,159	0,109	0,049	0,172
13	0,018	-0,022	-0,006	-0,073	0,039	0,009	-0,033	0,067	0,222	-0,172	-0,103	-0,105	-0,084	0,160	-0,079	0,206
14	-0,047	-0,163	-0,195	-0,148	-0,286	0,211	-0,083	-0,075	0,127	-0,091	0,693	-0,658	-0,199	-0,008	-0,179	-0,185
15	-0,375	-0,160	-0,040	-0,557	0,007	0,263	-0,057	-0,062	0,144	-0,376	-0,017	-0,085	-0,116	-0,001	-0,096	-0,295
16	0,640	0,045	0,042	0,183	-0,046	-0,106	0,051	0,010	-0,307	0,072	0,005	0,053	0,148	-0,004	0,081	0,469
17	0,001	0,010	-0,008	-0,028	-0,027	0,030	0,045	-0,030	0,011	-0,042	-0,153	-0,005	0,032	0,673	0,004	0,014
18	-0,683	-0,031	-0,019	-0,380	-0,032	0,213	-0,078	-0,049	0,265	-0,161	0,016	-0,005	-0,263	0,003	-0,058	-0,333
19	0,140	0,118	0,032	0,282	0,096	-0,036	0,370	-0,066	0,002	0,448	-0,005	0,074	0,104	0,070	0,210	0,003
20	0,330	0,050	0,006	0,158	0,177	-0,169	0,029	0,044	-0,203	0,227	-0,059	0,270	0,797	-0,014	0,186	0,263
21	-0,028	-0,120	-0,047	-0,081	-0,062	0,255	0,067	-0,092	0,066	-0,237	0,057	-0,043	-0,238	0,025	0,056	-0,249
22	0,252	0,054	0,041	0,113	-0,020	-0,300	0,044	0,135	-0,107	0,012	-0,071	0,082	0,103	-0,012	-0,017	0,225
23	-0,127	-0,036	0,041	-0,068	-0,125	0,286	0,006	0,031	0,372	-0,283	0,091	-0,178	-0,286	-0,043	-0,116	-0,020
24	0,060	0,081	-0,056	0,046	-0,005	-0,139	0,015	0,071	-0,035	0,029	-0,096	0,123	0,001	-0,102	-0,064	0,080
25	0,044	-0,047	-0,029	0,001	0,291	0,013	0,013	0,059	-0,098	0,117	-0,287	0,234	0,009	0,009	0,366	0,002
26	0,247	0,028	0,057	0,183	-0,048	-0,517	0,042	0,085	-0,118	-0,032	-0,084	0,027	0,049	0,010	0,114	0,136
27	0,033	0,004	-0,082	0,046	0,076	-0,015	-0,017	0,035	0,071	0,069	-0,090	0,009	0,043	0,007	0,243	-0,043
28	0,219	-0,090	0,021	0,114	0,105	0,055	0,192	0,027	-0,000	-0,055	-0,061	0,003	0,075	-0,148	0,157	0,066
29	0,206	0,000	0,103	0,104	0,048	-0,159	0,051	0,006	0,033	0,077	0,099	0,107	0,082	-0,012	0,065	0,187
30	-0,184	-0,017	0,041	-0,188	0,118	0,137	0,040	-0,025	0,038	-0,215	-0,033	0,322	0,005	-0,043	-0,001	-0,246

	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	-0,302	-0,007	0,051	0,359	-0,406	-0,036	0,228	0,318	0,028	0,192	0,080	0,170	-0,177	0,489
2	-0,167	-0,004	0,107	0,045	-0,181	0,046	0,034	0,160	0,244	0,017	-0,129	0,025	-0,052	0,097
3	-0,121	0,026	0,105	0,058	-0,071	0,308	0,409	0,240	-0,017	-0,024	-0,109	0,051	-0,143	0,224
4	-0,002	-0,006	-0,002	-0,004	-0,026	0,102	0,041	0,122	0,361	0,070	-0,007	0,014	-0,015	0,014
5	-0,066	0,013	0,019	0,024	0,119	0,095	0,008	0,187	-0,000	-0,033	-0,410	-0,126	-0,041	0,053
6	0,047	-0,050	-0,043	0,024	-0,043	-0,024	0,093	0,182	-0,025	-0,172	-0,078	0,036	-0,031	0,096
7	0,072	0,009	-0,119	-0,082	-0,057	0,009	0,076	0,010	-0,069	-0,547	-0,534	-0,122	-0,083	0,326
8	-0,038	0,136	-0,001	0,057	-0,006	0,171	0,031	0,139	0,049	-0,139	-0,151	-0,082	0,007	0,100
9	-0,137	0,047	-0,069	0,273	0,058	-0,029	0,216	0,247	0,039	-0,035	-0,143	-0,079	-0,672	0,260
10	-0,114	-0,064	0,266	0,021	-0,017	0,202	0,203	-0,001	0,039	-0,129	-0,033	0,011	-0,121	0,127
11	-0,685	0,025	0,125	0,210	0,012	-0,024	0,096	0,096	0,119	0,037	0,034	-0,026	-0,164	0,145
12	-0,306	-0,032	0,085	0,255	-0,119	0,015	0,247	0,499	-0,026	-0,115	0,132	0,006	-0,145	0,222
13	-0,065	-0,066	0,023	-0,007	0,150	-0,068	-0,200	-0,099	0,061	0,068	0,025	0,106	-0,016	-0,025
14	0,039	-0,010	0,187	-0,003	0,004	0,122	-0,125	-0,446	-0,187	0,072	0,309	-0,062	0,240	-0,069
15	0,028	0,040	0,157	-0,094	0,157	-0,146	-0,708	-0,307	0,017	-0,122	0,074	-0,073	0,130	-0,220
16	-0,014	-0,014	0,096	0,112	-0,207	-0,036	0,326	0,287	0,012	-0,113	0,031	0,065	-0,361	0,374
17	-0,009	0,174	0,008	-0,052	0,074	-0,002	-0,033	-0,012	0,119	0,011	0,018	0,016	-0,282	0,080
18	0,055	-0,017	-0,164	-0,177	0,151	-0,054	-0,384	-0,401	-0,023	0,173	0,119	-0,030	0,485	-0,725
19	0,041	0,056	0,205	-0,048	0,053	0,719	0,038	0,083	0,059	0,049	-0,072	-0,121	-0,065	0,084

I (3) (continued)

20	0,034	-0,007	-0,019	0,025	0,098	0,062	0,001	0,166	-0,093	-0,115	-0,146	0,034	-0,316	0,238
21	0,020	0,032	0,036	0,053	-0,040	-0,085	-0,096	-0,189	0,157	0,051	-0,046	-0,136	0,370	-0,193
22	-0,072	-0,022	0,024	0,262	-0,165	0,015	0,183	0,119	-0,009	0,001	-0,080	-0,057	-0,248	0,270
23	0,103	0,062	-0,101	-0,070	-0,076	-0,004	-0,213	-0,169	0,010	-0,097	[illegible]	-0,090	0,152	-0,145
24	0,074	-0,002	-0,241	0,039	-0,197	0,072	0,026	0,044	0,068	-0,089	-0,089	0,048	-0,117	0,076
25	0,017	0,023	0,010	0,003	0,088	0,044	0,030	-0,041	-0,110	0,055	-0,559	-0,002	0,065	-0,126
26	-0,306	-0,021	0,059	0,695	-0,231	0,056	0,391	0,383	-0,024	0,084	0,055	0,081	-0,151	0,270
27	0,073	0,046	-0,176	-0,039	0,125	0,071	0,099	-0,010	-0,368	-0,157	-0,068	-0,099	-0,010	0,050
28	-0,165	0,107	0,040	0,067	-0,224	0,066	0,191	0,104	-0,082	0,057	-0,170	-0,033	-0,125	0,204
29	-0,232	0,002	0,114	0,346	-0,134	-0,007	0,001	0,175	-0,074	-0,062	-0,156	-0,029	-0,230	0,585
30	-0,149	-0,017	-0,137	-0,050	0,093	0,090	-0,126	-0,277	-0,032	0,042	0,110	-0,054	0,159	-0,036

I (4)

MATRIX OF COEFFICIENTS OF CONGRUENCE

GENERAL PHYSICAL REQUIREMENTS

```
       1      2      3      4      5      6      7      8      9
1  0,084 -0,535  0,110 -0,306  0,894  0,112  0,335  0,166  0,029
2  0,988 -0,269  0,214 -0,481  0,097  0,632  0,155  0,272  0,372
3  0,209 -0,281  0,983 -0,291  0,100  0,141  0,394  0,466  0,125
4  0,527 -0,357  0,164 -0,624  0,104  0,962  0,286  0,355  0,106
5 -0,333  0,678 -0.603  0,440 -0,190 -0,371 -0,605 -0,960 -0,064
6 -0,204  0,524 -0,406  0,572 -0,298 -0,320 -0,915 -0,357 -0,112
7  0,254 -0,940  0,236 -0,444  0,347  0,314  0,442  0,405  0,096
8  0,095 -0,122  0,025 -0,160 -0,034  0,453  0,173 -0,064  0,793
9 -0,421  0,545 -0.353  0,984 -0,207 -0,546 -0,518 -0,349 -0,141
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I (5)

MATRIX OF COEFFICIENTS OF CONGRUENCE

REPRESENTATIONAL

	1	2	3	4	5	6	7	8	9	10	11	12
1	0,998	0,209	0,600	0,414	0,317	0,130	0,230	0,667	0,521	-0,529	-0,374	-0,176
2	0,560	0,257	0,975	0,275	0,222	0,020	0,250	0,419	0,514	-0,522	-0,342	-0,444
3	0,348	0,293	0,261	0,971	0,302	0,096	0,026	0,512	0,442	-0,269	-0,250	-0,039
4	0,211	0,953	0,278	0,275	0,357	0,037	0,079	0,287	0,232	-0,163	-0,178	-0,229
5	0,203	0,036	0,120	0,118	0,073	0,905	0,323	0,169	0,109	-0,136	-0,386	-0,080
6	-0,277	-0,277	-0,582	-0,105	-0,353	-0,001	-0,344	-0,146	-0,376	0,209	0,166	0,950
7	0,378	0,535	0,375	0,423	0,337	0,207	-0,240	0,556	0,409	-0,210	-0,769	-0,119
8	0,640	0,309	0,765	0,609	0,159	0,014	0,173	0,598	0,940	-0,573	-0,452	-0,114
9	0,338	0,345	0,164	0,298	0,935	0,117	0,024	0,344	0,103	-0,297	-0,134	-0,218
10	-0,507	-0,264	-0,270	-0,474	-0,240	-0,099	-0,028	-0,913	-0,388	0,285	0,239	0,015
11	0,519	0,137	0,551	0,288	0,206	0,004	0,008	0,381	0,403	-0,915	-0,260	-0,157
12	0,493	0,290	0,294	0,368	0,551	0,194	-0,017	0,693	0,272	-0,309	-0,299	-0,355

I (6)

MATRIX OF COEFFICIENTS OF CONGRUENCE

INTERPERSONAL

	1	2	3	4	5	6	7	8	9	10	11
1	0,994	0,360	-0,135	-0,432	0,357	0,209	0,353	0,274	-0,287	0.180	0.117
2	-0,186	-0,156	0,954	0,195	-0.071	-0,175	-0.513	-0,488	0.331	-0.133	0.097
3	-0,430	-0,956	0,205	0.237	-0,258	-0,239	-0.435	-0.438	0.578	-0,113	-0.152
4	-0,368	-0,282	0,140	0.276	-0,953	-0,292	-0.301	-0,299	0.245	-0,095	-0.071
5	-0,427	-0,265	0,132	0,957	-0,286	-0,200	-0.340	-0.306	0.257	0,203	-0,208
6	0,125	0,156	-0,196	-0,098	0.218	0,944	0.156	0,085	-0.148	0,262	0,162
7	-0,104	-0,241	-0,049	-0,118	-0,071	-0,280	-0.560	-0,145	0.211	-0,243	-0,689
8	-0,210	-0,402	0,325	0,212	-0,229	-0,207	-0,290	-0,343	0,893	-0,089	-0,126
9	0,289	0,392	-0,413	-0,326	0,328	0,137	0.525	0,973	-0,398	0.210	0.187
10	-0,318	-0,327	0,481	0,030	-0,228	-0,294	-0,836	-0,342	0,163	-0,666	-0,181
11	-0,231	-0,497	0,139	0,286	-0,403	-0,497	-0,589	-0,353	0,410	-0,331	-0,311

I (7)

MATRIX OF COEFFICIENTS OF CONGRUENCE

GOALS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,981	0,126	0,048	0,034	0,050	0,211	-0,152	0,327	0,044	0,028	0,511	-0,010	-0,118	-0,020	-0,002	0,006
2	-0,037	0,299	-0,017	0,036	-0,981	-0,066	0,383	0,010	-0,017	-0,010	-0,071	-0,015	0,073	-0,031	-0,031	0,207
3	0,027	0,006	0,700	0,003	0,022	0,055	0,051	0,023	-0,008	0,136	0,057	0,899	0,059	-0,405	0,091	0,104
4	-0,128	-0,964	-0,071	-0,042	0,287	0,015	-0,219	-0,116	-0,003	-0,144	-0,053	0,023	-0,024	0,075	0,034	-0,289
5	0,022	-0,009	-0,033	0,946	-0,019	0,000	-0,068	0,216	-0,009	0,133	-0,054	-0,001	0,010	0,019	0,206	-0,026
6	-0,106	-0,267	-0,018	0,020	-0,036	-0,521	0,098	-0,202	-0,179	-0,002	-0,434	0,006	0,086	0,028	-0,009	-0,121
7	0,157	-0,214	-0,011	0,069	0,388	0,039	-0,982	0,108	0,038	-0,015	0,157	-0,060	-0,207	0,014	0,021	-0,241
8	0,330	0,128	0,002	0,202	-0,005	0,126	-0,10[illegible]	0,964	0,099	0,016	0,388	0,002	-0,162	-0,050	0,037	0,043
9	0,053	0,187	0,655	0,004	-0,018	0,006	-0,052	0,056	-0,007	0,385	0,051	0,142	-0,090	-0,378	-0,006	0,036
10	0,037	0,097	0,177	0,030	-0,113	-0,032	0,008	0,045	-0,010	0,168	0,007	0,170	0,013	-0,711	0,042	0,061
11	0,607	0,167	0,005	0,089	0,025	-0,023	-0,134	0,322	0,070	0,105	0,228	-0,045	-0,261	-0,073	-0,000	-0,147
12	0,014	-0,019	0,037	0,275	0,035	0,017	-0,017	0,051	-0,009	0,211	0,031	0,148	-0,008	-0,129	0,891	0,048
13	-0,577	-0,196	-0,125	-0,021	-0,030	-0,079	0,091	-0,479	-0,058	-0,069	-0,713	-0,071	0,133	0,005	0,025	-0,128
14	-0,104	0,060	0,024	0,067	-0,033	0,026	0,135	-0,102	-0,039	0,099	-0,163	0,075	0,733	0,050	0,022	-0,054
15	0,345	-0,038	0,063	0,018	0,109	0,390	-0,128	0,352	0,045	-0,013	0,765	-0,049	-0,113	-0,010	0,059	-0,071
16	-0,022	-0,126	-0,282	-0,094	0,015	0,055	-0,019	-0,007	-0,005	-0,875	-0,006	-0,156	0,003	0,446	-0,117	-0,121
17	-0,089	0,348	0,067	-0,036	-0,174	0,097	0,209	0,027	-0,025	0,116	0,038	0,110	-0,077	-0,109	-0,020	0,797
18	0,000	-0,025	-0,016	-0,003	0,025	-0,008	-0,041	0,096	0,904	-0,002	0,049	-0,008	-0,037	0,004	0,016	-0,053
19	0,065	0,132	0,026	0,513	-0,049	-0,015	-0,053	0,110	0,006	0,236	0,066	-0,050	-0,024	0,008	0,138	0,057
20	-0,010	0,429	-0,001	0,005	-0,381	0,001	0,024	0,003	-0,021	-0,042	0,000	-0,040	0,132	0,042	-0,050	0,163
21	-0,030	0,034	0,504	-0,028	0,031	-0,018	0,103	0,001	-0,006	0,155	0,026	0,433	0,079	-0,273	0,049	0,045
22	0,208	-0,079	-0,025	-0,006	0,068	0,790	-0,022	0,034	-0,056	-0,008	0,116	0,059	0,127	0,014	0,016	0,094
23	-0,293	-0,091	-0,064	-0,006	0,014	-0,099	0,247	-0,223	-0,044	-0,071	-0,291	-0,031	0,463	0,066	-0,032	-0,055
24	0,260	0,054	0,052	-0,011	0,017	0,169	-0,008	0,430	0,046	0,073	0,179	0,100	0,160	-0,121	0,089	0,264
25	-0,198	-0,177	-0,019	-0,173	0,013	0,084	0,052	-0,159	-0,120	-0,049	-0,249	0,105	0,058	0,033	-0,028	0,092
26	0,037	0,083	0,000	0,097	0,044	0,085	-0,052	0,095	-0,018	0,189	-0,050	-0,001	0,287	-0,058	0,106	0,058

	17	18	19	20	21	22	23	24	25	26
1	0,007	0,343	0,409	0,016	-0,181	0,145	0,115	-0,306	0,190	0,004
2	0,037	0,007	-0,020	-0,020	0,209	0,042	0,304	0,039	0,039	-0,018
3	0,020	-0,076	0,054	0,014	-0,089	0,188	-0,007	-0,033	0,019	-0,041
4	0,047	-0,133	-0,169	0,050	-0,142	-0,158	-0,343	-0,075	-0,034	0,061
5	0,001	0,010	-0,003	0,398	-0,046	0,070	0,045	-0,005	0,049	-0,039
6	0,790	-0,049	-0,211	0,006	0,040	0,073	0,046	-0,055	-0,004	0,212
7	-0,097	0,113	0,067	0,035	-0,125	0,033	0,017	-0,264	0,044	-0,104
8	-0,131	0,202	0,438	0,107	-0,088	0,095	0,135	-0,147	0,115	-0,028
9	-0,000	0,066	0,134	-0,020	-0,073	0,049	0,012	-0,007	0,103	0,051
10	0,025	0,096	-0,017	0,025	-0,008	0,077	0,180	-0,112	0,199	-0,021
11	0,003	0,873	0,382	-0,155	-0,156	0,138	0,289	-0,175	0,181	-0,131
12	0,032	-0,062	0,043	0,080	-0,064	0,091	-0,041	-0,036	0,026	0,037
13	0,021	-0,181	-0,856	0,038	0,080	-0,125	-0,101	0,212	0,083	-0,026
14	0,041	-0,124	-0,039	0,034	0,068	0,177	-0,063	0,359	-0,004	-0,068
15	-0,085	-0,059	0,170	0,128	-0,117	-0,023	0,050	-0,156	0,293	-0,082
16	-0,029	-0,015	-0,073	-0,051	0,082	-0,131	-0,058	0,086	-0,098	-0,037
17	-0,058	-0,111	0,031	0,026	0,292	-0,092	-0,035	0,456	-0,027	-0,025
18	-0,300	0,020	0,027	0,009	-0,045	0,005	0,082	-0,053	0,037	-0,088
19	0,024	0,065	0,120	-0,210	0,072	0,329	0,110	-0,104	-0,122	-0,371
20	0,018	0,009	0,019	-0,021	0,366	-0,054	0,678	-0,005	-0,150	0,012
21	0,040	-0,059	0,005	-0,001	-0,120	-0,034	-0,001	-0,002	0,072	0,338
22	-0,009	-0,141	-0,034	0,063	0,038	-0,161	-0,078	-0,115	0,035	0,150
23	-0,022	-0,144	-0,184	-0,091	0,134	-0,100	-0,089	0,701	-0,041	0,107

I (7) (continued)

24	-0,008	-0,083	0,542	0,196	0,033	0,08[illegible]	-0,097	-0,146	0,288	-0,036
25	0,062	-0,317	-0,272	0,334	0,101	-0,419	-0,302	-0,013	-0,294	0,079
26	0,017	0,014	0,118	0,192	-0,265	0,208	-0,036	0,017	0,208	-0,120

I (8)

MATRIX OF COEFFICIENTS OF CONGRUENCE

CONTEXT

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-0,990	0,251	0,403	0,031	0,075	-0,077	-0,071	-0,428	-0,090	0,039	-0,325	-0,038	-0,102	-0,477
2	-0,219	0,957	0,124	0,122	0,325	-0,281	0,310	-0,180	0,005	-0,280	-0,337	0,044	0,010	-0,166
3	0,304	-0,123	-0,964	-0,001	-0,061	-0,140	0,030	0,181	-0,288	0,013	0,093	0,119	0,024	0,166
4	-0,019	-0,130	0,032	-0,955	-0,144	0,208	-0,353	-0,076	-0,125	0,045	-0,077	-0,174	-0,078	-0,173
5	-0,101	0,273	-0,126	0,353	0,138	-0,870	0,011	0,108	0,227	0,122	-0,096	0,117	-0,070	0,037
6	0,452	-0,133	-0,231	0,122	0,036	-0,047	0,186	0,387	0,204	0,074	0,409	0,101	0,153	0,930
7	-0,306	0,156	0,215	-0,068	0,025	0,031	0,072	-0,891	0,037	-0,023	-0,169	-0,016	0,087	-0,291
8	0,061	-0,577	0,111	-0,116	-0,412	0,715	-0,154	-0,009	-0,115	-0,056	0,073	-0,196	-0,430	-0,098
9	-0,110	0,463	0,091	0,172	0,793	0,023	0,063	-0,045	0,044	-0,334	0,028	0,121	-0,156	-0,024
10	-0,051	0,072	-0,320	0,012	-0,049	-0,166	0,154	0,138	0,479	-0,059	-0,422	0,030	-0,274	-0,036
11	0,340	-0,269	-0,073	0,096	0,067	0,047	0,160	0,264	0,142	-0,044	0,888	0,092	-0,185	0,399
12	0,140	-0,388	-0,046	-0,022	-0,511	0,343	-0,449	0,046	0,303	-0,187	-0,026	-0,233	0,224	-0,029
13	-0,078	-0,208	0,279	-0,123	-0,099	0,332	-0,429	-0,163	-0,120	-0,009	-0,065	-0,708	-0,152	-0,137
14	0,193	-0,004	0,099	0,269	0,131	-0,084	0,241	-0,017	0,393	-0,355	0,085	0,222	0,146	0,505

APPENDIX J

COEFFICIENTS OF CONGRUENCE BETWEEN THE OBLIQUELY ROTATED FACTORS FROM EIGHT SECTIONAL FACTOR ANALYSES APPLIED SEPARATELY TO TWO SUBSAMPLES OF JOBS (N = 707 JOBS PER SUBSAMPLE)

(1) Table 66. Coefficients of Congruence Between the Two Subsamples for 20 Obliquely Rotated Information Received Factors

(2) Table 67. Coefficients of Congruence Between the Two Subsamples for 10 Obliquely Rotated Mental Activities Factors

(3) Table 68. Coefficients of Congruence Between the Two Subsamples for 30 Obliquely Rotated Physical Work Behavior Factors

(4) Table 69. Coefficients of Congruence Between the Two Subsamples for 9 Obliquely Rotated General Physical Requirements Factors

(5) Table 70. Coefficients of Congruence Between the Two Subsamples for 12 Obliquely Rotated Representational Work Behavior Factors

(6) Table 71. Coefficients of Congruence Between the Two Subsamples for 11 Obliquely Rotated Interpersonal Work Behavior Factors

(7) Table 72. Coefficients of Congruence Between the Two Subsamples for 26 Obliquely Rotated Work Goals Factors

(8) Table 73. Coefficients of Congruence Between the Two Subsamples for 14 Obliquely Rotated Work Context Factors

J (1)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,957	-0,065	0,031	-0,037	-0,042	0,048	0,011	0,357	-0,060	0,028	-0,020	-0,024	-0,002	0,161	0,044	0,167
2	0,045	0,578	0,053	-0,134	-0,140	0,060	0,031	0,046	0,066	0,015	0,056	-0,067	0,068	-0,074	-0,001	0,015
3	0,030	0,135	0,891	-0,052	-0,079	-0,069	-0,009	-0,056	-0,101	-0,055	0,013	-0,037	0,080	-0,026	0,030	0,021
4	0,133	-0,127	-0,011	0,737	0,080	0,126	-0,028	0,115	-0,060	0,011	0,071	-0,034	-0,179	-0,072	0,158	-0,158
5	0,029	0,011	0,034	0,031	-0,767	0,054	-0,015	-0,064	-0,010	-0,295	-0,064	-0,024	0,213	0,031	0,032	0,036
6	0,148	-0,054	-0,060	0,070	-0,012	0,952	-0,001	0,117	-0,026	-0,018	-0,004	-0,002	-0,088	0,018	-0,028	-0,147
7	-0,145	-0,058	-0,021	-0,023	0,130	-0,076	0,824	-0,001	-0,029	-0,105	-0,074	-0,017	0,000	-0,066	0,012	-0,099
8	-0,033	-0,151	-0,078	0,082	0,044	-0,001	0,121	0,055	-0,031	-0,040	0,157	0,033	0,039	-0,048	0,033	-0,068
9	0,000	-0,103	-0,089	0,007	0,022	-0,060	-0,019	0,014	0,074	0,082	-0,057	0,012	0,619	0,144	-0,058	-0,219
10	0,109	0,019	0,002	0,053	0,009	0,140	-0,043	-0,109	-0,019	0,013	-0,031	0,042	0,008	0,004	-0,104	0,015
11	-0,037	-0,019	-0,001	-0,009	0,036	-0,024	-0,011	-0,086	0,007	0,905	-0,015	-0,008	0,063	0,017	0,039	0,018
12	0,007	-0,053	-0,311	-0,003	0,029	0,013	-0,039	0,062	0,911	0,023	0,094	0,005	-0,052	-0,046	0,055	-0,058
13	-0,394	0,050	-0,030	-0,023	0,227	-0,179	0,094	-0,855	0,035	-0,048	-0,087	-0,018	0,041	-0,052	-0,044	0,076
14	-0,041	-0,020	0,046	0,063	0,049	0,017	0,068	-0,198	0,199	0,003	-0,151	-0,028	-0,044	0,031	0,774	-0,018
15	-0,045	0,183	0,014	0,043	-0,104	0,105	-0,120	-0,081	-0,032	-0,024	-0,806	0,115	-0,066	0,171	0,035	0,097
16	-0,092	-0,172	-0,086	0,085	0,058	-0,080	0,082	-0,080	-0,023	0,005	-0,021	0,892	0,071	0,047	-0,052	0,139
17	-0,020	0,107	-0,031	0,064	-0,118	-0,037	-0,009	-0,095	0,014	-0,013	-0,156	0,043	-0,008	0,002	-0,039	-0,620
18	0,026	-0,233	-0,007	0,066	-0,021	-0,015	0,024	0,016	0,076	-0,032	0,023	0,056	0,131	-0,821	-0,117	-0,174
19	0,098	0,075	0,010	0,332	-0,071	0,249	0,193	-0,030	-0,064	0,035	0,040	0,056	0,118	-0,408	-0,155	0,365
20	0,026	-0,092	0,102	0,141	-0,337	0,090	0,120	-0,250	0,022	0,083	0,118	0,088	-0,075	-0,084	0,032	0,080

	17	18	19	20
1	-0,033	0,184	0,001	0,240
2	-0,006	-0,071	0,270	-0,389
3	0,025	-0,023	0,043	-0,006
4	0,116	-0,027	0,068	0,123
5	0,135	0,135	-0,116	0,047
6	0,076	-0,020	-0,051	-0,057
7	0,017	-0,051	-0,115	0,035
8	0,010	0,785	-0,026	0,181
9	-0,074	-0,006	0,553	-0,149
10	-0,836	-0,087	-0,015	-0,069
11	-0,024	0,029	0,013	-0,044
12	-0,021	0,011	0,038	0,026
13	-0,014	-0,243	-0,014	-0,309
14	-0,052	-0,040	0,020	-0,018
15	-0,006	0,112	-0,008	0,122
16	-0,030	0,000	-0,017	0,034
17	-0,007	-0,009	-0,019	0,033
18	-0,008	-0,057	-0,145	-0,033
19	0,005	0,156	-0,109	0,107
20	-0,117	0,211	0,127	0,292

J (2)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10
1	0.605	0.281	0.269	0.038	-0.007	-0.089	-0.137	0.168	0.380	0.089
2	0.025	0.403	-0.058	0.010	-0.013	0.036	0.088	-0.846	0.089	-0.049
3	-0.071	-0.011	0.948	0.067	0.063	0.566	0.057	-0.008	0.113	0.012
4	-0.145	0.225	0.183	0.811	-0.033	-0.045	0.143	-0.035	0.195	-0.263
5	0.450	0.113	0.196	0.441	0.166	0.686	0.205	0.009	0.014	0.046
6	-0.046	0.752	0.183	-0.101	-0.177	0.278	-0.211	0.376	-0.188	0.091
7	0.184	0.016	0.084	0.005	0.068	0.056	-0.013	-0.239	0.061	-0.718
8	-0.017	-0.055	-0.152	0.039	0.901	-0.139	-0.057	-0.024	-0.045	0.177
9	0.271	0.130	0.207	0.029	0.056	0.142	0.687	0.288	0.039	-0.036
10	-0.119	0.217	-0.023	0.141	0.053	0.080	0.063	-0.225	0.834	-0.285

J (3)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,122	0,058	0,139	-0,091	-0,040	-0,074	-0,117	0,039	-0,050	-0,109	-0,105	0,247	-0,013	0,067	0,058	0,170
2	0,018	0,041	0,705	-0,038	-0,232	0,160	-0,161	-0,034	0,061	-0,001	0,131	-0,041	-0,047	0,087	-0,045	-0,019
3	0,073	0,006	-0,037	0,656	-0,137	0,211	-0,047	-0,234	0,039	-0,192	-0,103	0,050	0,053	0,041	-0,005	-0,119
4	0,006	0,886	0,015	0,022	-0,042	0,153	0,112	-0,042	0,008	0,127	-0,116	0,042	0,044	-0,066	0,017	0,065
5	-0,017	-0,132	0,007	0,011	0,653	-0,111	-0,080	0,082	0,010	0,200	0,208	-0,023	-0,003	0,020	0,129	0,088
6	0,022	-0,087	-0,030	-0,019	-0,067	-0,068	0,066	0,797	0,120	-0,052	0,125	-0,189	-0,025	0,035	0,095	0,003
7	0,033	-0,005	-0,080	0,126	0,016	-0,010	-0,086	-0,040	-0,086	-0,190	-0,188	-0,014	0,046	-0,037	0,024	-0,011
8	0,026	0,014	-0,105	-0,009	0,114	-0,028	0,645	-0,059	0,037	-0,147	0,025	-0,125	0,130	0,114	0,190	0,178
9	-0,121	0,001	-0,288	0,175	0,157	-0,124	0,046	-0,099	0,117	-0,049	0,010	-0,159	0,036	-0,058	0,129	0,185
10	-0,123	-0,022	0,129	0,068	0,103	0,140	-0,032	0,075	-0,006	0,452	-0,098	0,062	0,048	-0,085	-0,029	-0,067
11	-0,078	0,030	-0,077	-0,016	-0,009	-0,197	0,005	-0,058	0,013	-0,055	-0,127	0,029	0,085	-0,058	-0,023	-0,008
12	-0,032	-0,178	0,008	-0,077	0,042	-0,172	0,056	-0,047	0,087	-0,037	0,137	-0,009	-0,069	0,164	0,086	-0,059
13	0,081	0,035	-0,005	0,008	0,081	-0,052	0,072	0,150	0,018	0,097	-0,149	-0,022	0,000	0,168	0,042	0,135
14	0,031	-0,150	-0,121	0,013	0,051	-0,151	-0,047	0,026	-0,049	-0,085	0,492	-0,056	-0,016	0,085	0,069	-0,142
15	-0,186	-0,027	0,025	0,079	-0,014	0,055	0,083	0,022	-0,149	-0,028	0,046	0,026	0,068	-0,089	-0,016	-0,192
16	0,296	-0,006	-0,064	-0,040	-0,110	0,167	0,068	-0,098	-0,293	-0,097	0,035	-0,054	-0,054	-0,013	0,051	0,027
17	-0,026	0,026	-0,030	-0,038	-0,032	0,121	0,065	0,010	0,052	-0,009	-0,165	-0,085	0,148	0,616	0,008	-0,089
18	-0,127	0,019	0,040	0,006	0,008	-0,107	-0,086	0,000	-0,014	-0,018	-0,068	0,060	-0,062	-0,039	0,042	0,059
19	-0,021	0,025	-0,072	-0,008	0,024	-0,013	-0,017	-0,043	-0,241	0,163	-0,005	0,069	0,058	-0,024	0,138	-0,248
20	0,026	-0,046	-0,058	-0,048	0,006	-0,046	0,094	0,005	-0,056	-0,010	0,016	0,146	0,673	-0,051	0,224	0,076
21	0,106	0,119	0,130	-0,050	0,078	0,045	0,074	-0,026	-0,122	-0,045	0,008	-0,014	-0,003	0,028	0,143	-0,026
22	0,037	0,074	0,021	-0,007	-0,034	-0,143	-0,059	0,072	-0,039	-0,068	-0,036	0,118	0,007	-0,009	-0,103	0,109
23	0,095	-0,003	-0,050	0,219	0,052	0,052	-0,098	0,019	-0,009	-0,068	-0,194	0,026	-0,082	0,010	-0,007	0,090
24	0,044	0,025	0,188	-0,023	-0,129	-0,165	-0,067	-0,022	0,050	0,033	0,075	0,251	-0,101	-0,131	-0,191	0,051
25	-0,043	0,003	-0,065	-0,078	-0,021	0,003	-0,069	-0,033	-0,069	-0,001	0,084	0,128	0,010	-0,135	0,248	-0,129
26	-0,028	-0,034	-0,046	-0,049	0,018	-0,190	-0,048	0,006	-0,061	-0,072	0,146	-0,062	-0,050	0,010	0,053	-0,254
27	0,112	0,158	-0,037	-0,103	-0,010	-0,031	0,132	0,020	0,047	0,021	0,034	-0,106	0,087	0,188	0,250	0,084
28	0,116	-0,010	-0,133	-0,165	-0,087	0,035	0,017	0,031	-0,022	-0,153	0,013	-0,068	-0,006	-0,017	0,089	-0,031
29	-0,153	-0,040	-0,074	0,123	0,021	0,058	0,009	-0,026	0,120	0,034	0,136	0,144	0,023	-0,091	0,052	-0,005
30	-0,154	-0,005	0,007	0,061	0,186	-0,109	0,070	-0,058	-0,155	-0,111	-0,214	0,312	0,129	-0,061	-0,060	-0,286

	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1	-0,214	-0,077	-0,126	0,185	-0,179	-0,030	-0,186	-0,187	0,012	0,333	0,122	0,165	0,168	0,406
2	0,018	-0,050	0,173	-0,045	0,012	-0,061	-0,022	-0,066	0,022	0,141	0,056	-0,032	0,084	0,015
3	0,101	0,132	0,214	-0,149	0,022	0,036	0,068	-0,020	-0,085	0,392	-0,032	0,118	0,053	0,111
4	0,118	0,035	-0,014	-0,014	0,164	0,025	-0,028	-0,175	0,296	0,037	0,003	-0,046	0,011	0,011
5	-0,040	-0,039	-0,057	0,094	0,121	-0,065	0,024	-0,025	-0,095	-0,009	-0,118	-0,160	0,082	-0,018
6	0,084	-0,060	0,028	-0,068	-0,046	-0,060	-0,006	0,024	-0,165	-0,044	0,044	0,049	0,056	-0,006
7	0,066	0,071	-0,071	-0,079	-0,184	-0,006	-0,195	-0,148	-0,062	-0,190	-0,349	-0,079	0,116	0,089
8	0,078	0,025	-0,003	0,067	-0,010	-0,192	-0,013	-0,021	-0,006	0,047	0,205	0,078	0,068	0,065
9	0,042	0,092	0,072	0,046	0,138	-0,173	0,118	-0,056	0,008	0,040	0,060	-0,137	-0,465	-0,099
10	-0,020	-0,132	0,347	-0,047	-0,104	0,017	0,032	-0,076	0,019	0,013	0,002	0,079	0,031	-0,033
11	-0,476	0,046	-0,041	0,115	0,045	-0,068	-0,028	-0,130	-0,003	0,078	0,046	0,014	-0,228	0,098
12	-0,401	0,028	0,164	-0,080	0,151	-0,122	0,139	0,187	-0,187	-0,106	0,199	-0,085	0,163	-0,028
13	0,002	-0,132	0,099	0,007	0,190	0,115	-0,066	-0,021	0,059	-0,095	-0,052	0,031	0,024	-0,002
14	-0,179	-0,065	-0,060	0,025	-0,041	0,250	0,033	-0,026	-0,194	0,106	-0,009	-0,000	0,045	0,067
15	-0,071	-0,061	-0,029	0,072	-0,017	0,158	-0,426	-0,134	0,036	0,028	-0,030	0,084	-0,063	0,184
16	0,082	0,062	0,067	-0,041	-0,083	0,006	0,160	0,024	0,027	-0,103	0,180	-0,093	-0,037	-0,087
17	0,013	0,132	0,082	-0,112	-0,004	0,030	-0,021	0,004	0,105	-0,058	0,030	0,054	-0,053	0,030
18	-0,054	0,002	-0,188	0,017	-0,041	0,087	-0,084	-0,147	-0,040	0,224	-0,054	-0,053	0,060	-0,339
19	0,007	-0,084	-0,071	-0,009	-0,002	0,601	-0,114	0,034	0,041	-0,005	-0,021	-0,078	-0,044	0,039
20	-0,015	0,004	-0,096	-0,021	0,085	-0,037	-0,153	-0,069	-0,060	0,059	-0,020	0,022	-0,173	0,064
21	0,077	-0,027	0,041	0,103	0,110	-0,086	0,052	-0,217	0,225	0,001	-0,051	-0,170	0,119	-0,082

J (3) (continued)

22	0,021	-0,043	-0,028	0,111	-0,027	-0,039	-0,080	-0,151	0,014	0,184	-0,045	-0,042	-0,047	0,070
23	0,036	0,102	-0,088	0,067	-0,093	0,032	-0,153	-0,083	-0,083	-0,046	0,106	-0,070	0,177	-0,015
24	0,020	0,027	-0,134	-0,016	-0,061	0,001	-0,172	0,216	0,056	0,097	0,012	0,065	-0,190	-0,025
25	0,106	0,068	-0,043	0,014	0,082	0,017	0,086	-0,015	-0,001	0,206	-0,255	-0,051	-0,087	-0,151
26	-0,095	-0,034	0,036	0,325	-0,091	0,170	-0,073	0,020	-0,074	0,126	-0,154	0,153	-0,031	0,011
27	-0,079	0,030	-0,016	0,045	0,055	0,015	0,014	-0,046	-0,245	-0,072	0,212	-0,062	0,021	0,136
28	-0,127	0,085	0,062	-0,091	-0,166	0,075	0,092	0,198	-0,135	0,068	0,091	0,013	-0,062	0,018
29	-0,131	0,054	0,007	0,272	0,036	-0,178	-0,053	0,045	-0,136	0,022	-0,022	0,034	-0,156	0,370
30	-0,153	-0,052	-0,137	0,059	0,001	0,143	0,025	-0,117	-0,070	-0,038	0,031	0,021	0,076	0,113

J (4)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9
1	-0,102	-0,002	-0,056	-0,142	0,894	-0,059	-0,104	-0,046	-0,061
2	0,958	0,089	-0,056	0,048	0,047	-0,032	-0,033	-0,047	0,053
3	0,071	0,066	0,942	-0,035	0,023	-0,134	-0,248	0,136	0,062
4	0,068	0,003	-0,006	0,389	-0,045	0,892	0,054	-0,037	0,201
5	0,101	0,099	0,030	-0,157	-0,012	-0,172	-0,443	-0,829	-0,330
6	-0,054	-0,181	-0,066	0,012	-0,004	0,037	-0,695	0,373	0,017
7	-0,043	-0,903	0,027	0,024	-0,031	0,008	0,004	-0,065	0,035
8	0,236	-0,004	0,024	0,060	0,018	0,024	0,025	-0,213	0,712
9	-0,063	-0,072	-0,110	0,653	0,215	-0,282	0,152	0,037	-0,142

J (5)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11	12
1	0,945	-0,036	-0,022	-0,033	-0,036	-0,003	0,409	-0,022	-0,040	-0,030	-0,102	-0,005
2	-0,043	0,088	0,918	-0,067	0,124	-0,021	0,062	0,155	-0,015	0,019	-0,114	0,055
3	0,125	0,067	-0,081	0,930	-0,034	0,076	0,040	0,002	0,034	0,060	0,225	0,127
4	-0,028	0,942	-0,096	0,067	0,078	-0,002	0,028	-0,013	-0,100	0,012	-0,039	0,030
5	0,013	0,121	0,004	0,079	0,007	0,824	0,489	-0,094	-0,128	-0,003	-0,205	-0,026
6	0,022	-0,094	0,080	0,021	-0,102	-0,027	-0,081	-0,006	-0,059	-0,042	0,379	0,909
7	0,351	0,318	-0,116	-0,105	0,214	-0,000	-0,268	0,141	0,088	0,147	-0,511	0,057
8	-0,010	0,035	-0,047	-0,060	0,013	0,073	0,080	-0,055	0,874	-0,009	0,003	-0,083
9	-0,013	0,059	-0,027	0,097	0,812	0,066	0,166	-0,056	0,227	-0,109	0,055	0,171
10	0,136	0,017	-0,133	-0,063	-0,054	-0,086	-0,061	-0,865	0,060	-0,202	-0,279	-0,152
11	0,054	-0,056	-0,106	0,018	0,063	-0,061	-0,079	-0,149	0,003	-0,872	-0,101	-0,029
12	-0,029	-0,093	-0,074	0,040	0,281	0,155	-0,028	0,288	-0,102	-0,147	0,010	-0,143

J (6)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11
1	0,957	-0,071	0,052	0,043	-0,042	-0,033	-0,113	-0,070	0,209	-0,126	0,025
2	-0,099	0,123	0,734	-0,040	-0,159	0,138	-0,318	-0,037	0,108	0,170	0,117
3	0,078	-0,875	0,071	0,034	0,026	0,011	0,046	-0,065	-0,238	0,170	0,048
4	-0,193	0,080	0,080	-0,168	-0,896	0,001	-0,025	-0,204	0,038	0,012	0,144
5	-0,007	0,027	-0,113	0,891	-0,052	-0,012	-0,242	0,010	-0,054	0,265	0,182
6	0,000	-0,003	-0,119	0,022	0,066	0,845	-0,124	0,009	0,054	0,095	0,063
7	0,013	0,058	-0,275	-0,084	0,082	0,040	-0,070	0,037	0,078	-0,009	-0,739
8	-0,024	0,015	0,182	-0,002	0,032	0,046	-0,058	-0,003	0,786	0,030	0,091
9	-0,051	0,021	-0,022	-0,015	0,144	0,025	0,058	0,927	-0,142	0,057	0,069
10	0,064	-0,045	0,019	0,100	-0,091	0,047	-0,712	0,074	-0,174	-0,490	0,044
11	-0,022	-0,308	-0,263	0,175	-0,148	-0,321	-0,108	-0,125	0,030	-0,106	-0,051

J (7).

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0,911	0,034	0,034	−0,001	−0,038	0,059	−0,073	−0,095	0,007	0,006	−0,057	−0,029	−0,069	0,022	−0,060	0,071
2	0,011	0,005	−0,036	0,042	−0,852	−0,011	−0,018	−0,005	−0,010	−0,002	−0,074	−0,034	−0,211	0,014	−0,010	−0,059
3	0,011	−0,128	0,430	0,011	0,080	0,020	0,022	−0,004	0,023	0,053	−0,019	0,720	−0,140	−0,041	−0,068	0,032
4	−0,024	−0,714	0,075	0,039	−0,010	0,041	−0,039	−0,047	0,018	0,215	−0,108	0,066	0,175	0,047	0,024	0,258
5	0,047	−0,048	−0,035	0,738	0,073	0,002	−0,051	0,078	−0,016	0,048	−0,085	0,023	0,046	0,062	0,063	−0,047
6	0,143	−0,339	0,052	0,047	0,014	−0,352	0,032	−0,059	0,060	0,092	−0,257	−0,010	0,036	0,044	0,010	0,010
7	0,087	−0,038	−0,020	0,042	0,062	0,027	−0,928	0,047	−0,001	−0,022	0,091	0,005	−0,161	−0,005	−0,014	0,103
8	0,078	0,050	−0,105	−0,067	−0,037	−0,050	−0,055	0,321	0,049	−0,041	0,075	−0,012	−0,128	−0,059	−0,120	−0,162
9	−0,039	0,111	0,502	−0,050	−0,075	0,049	−0,066	−0,019	−0,025	0,003	−0,015	−0,212	−0,189	−0,127	−0,092	−0,138
10	0,049	−0,058	0,032	0,001	−0,043	−0,008	0,013	−0,021	−0,001	0,050	−0,005	0,021	−0,093	−0,690	0,012	0,081
11	0,087	−0,037	−0,046	0,076	−0,059	0,160	−0,136	0,009	0,023	0,001	−0,100	0,043	0,087	−0,019	0,075	0,095
12	0,007	−0,013	−0,028	0,006	−0,019	−0,003	−0,005	−0,031	−0,010	0,071	0,029	0,012	−0,052	−0,043	0,827	−0,035
13	0,198	−0,062	−0,047	0,011	0,012	0,081	−0,014	0,096	0,032	−0,027	−0,200	−0,093	−0,268	−0,130	0,037	−0,201
14	0,051	0,147	−0,007	−0,040	−0,091	0,047	0,043	−0,037	0,001	0,083	0,062	0,065	0,217	0,052	−0,043	0,002
15	0,146	−0,123	−0,005	−0,066	0,090	0,098	0,007	0,169	−0,047	−0,041	0,528	−0,096	−0,110	0,019	0,059	−0,083
16	0,019	0,072	0,043	0,079	−0,017	−0,036	−0,063	0,081	0,028	−0,714	−0,055	−0,049	−0,061	0,066	−0,112	0,064
17	−0,102	0,213	−0,079	0,037	0,080	−0,065	−0,012	0,057	0,029	0,166	−0,137	0,005	−0,101	0,098	−0,008	0,194
18	−0,056	−0,016	−0,028	−0,050	0,054	0,037	−0,030	0,089	0,855	−0,007	0,057	0,007	−0,011	−0,001	0,014	−0,028
19	0,007	0,001	0,000	0,598	0,013	0,070	−0,056	0,023	0,024	0,261	0,024	−0,004	−0,152	0,030	0,096	0,056
20	−0,027	0,016	0,005	0,019	0,152	0,046	−0,056	0,053	−0,021	−0,029	−0,026	−0,019	0,267	0,028	0,031	0,050
21	−0,022	0,037	0,236	−0,009	0,054	−0,053	−0,164	0,019	−0,031	0,101	0,031	0,107	0,045	0,034	−0,001	0,064
22	0,066	−0,053	−0,051	0,029	0,072	0,723	−0,013	−0,019	−0,045	−0,031	−0,072	0,069	0,081	0,027	0,021	0,107
23	0,019	−0,105	−0,003	−0,026	0,204	0,033	0,210	−0,044	−0,041	−0,041	−0,052	0,000	0,420	0,021	−0,022	0,125
24	0,039	0,054	0,004	−0,069	0,038	0,028	−0,033	0,095	0,005	0,023	−0,206	0,043	0,083	0,031	0,025	0,197
25	0,044	−0,072	−0,103	−0,065	0,015	0,189	−0,030	0,064	−0,098	−0,068	0,134	0,015	0,128	−0,004	0,126	0,038
26	−0,115	−0,027	0,047	0,083	−0,064	0,048	−0,172	−0,021	0,011	0,089	−0,161	−0,064	0,158	0,113	0,060	−0,388

	17	18	19	20	21	22	23	24	25	26
1	−0,001	0,153	0,107	0,077	−0,115	0,090	−0,072	−0,027	0,234	0,101
2	0,008	−0,131	−0,070	0,001	−0,014	0,081	−0,063	0,191	0,095	−0,002
3	0,181	−0,182	−0,057	0,094	−0,084	0,375	−0,005	−0,073	0,058	−0,107
4	−0,093	0,173	0,088	−0,102	−0,032	−0,012	0,041	−0,127	0,085	−0,276
5	−0,019	−0,042	0,056	0,020	−0,081	−0,092	0,036	0,047	0,134	0,016
6	0,720	−0,090	−0,063	0,016	0,012	0,014	0,039	−0,017	0,171	0,050
7	−0,027	0,059	−0,041	0,005	0,061	−0,135	−0,066	0,070	0,020	0,018
8	0,038	0,015	−0,044	0,011	−0,060	−0,191	−0,046	0,101	−0,134	0,124
9	0,010	−0,107	0,104	0,005	−0,043	0,155	−0,145	0,139	0,046	0,120
10	0,106	0,069	−0,182	0,058	−0,025	0,057	0,002	−0,068	0,069	−0,006
11	−0,060	0,759	−0,002	0,009	−0,006	−0,142	0,007	−0,103	0,071	−0,191
12	0,051	−0,032	−0,003	0,098	−0,003	0,000	−0,085	0,028	−0,029	0,089
13	0,092	−0,154	−0,650	−0,057	−0,086	0,091	−0,016	0,178	0,310	−0,060
14	0,073	0,018	−0,050	0,097	0,035	0,112	−0,030	−0,131	−0,080	−0,071
15	−0,010	−0,194	−0,059	0,069	−0,010	−0,010	0,059	0,079	0,400	−0,087
16	0,189	0,035	−0,040	−0,073	0,070	0,043	0,045	−0,015	0,030	−0,025
17	0,170	−0,067	−0,036	0,175	−0,153	0,228	−0,127	0,101	0,102	0,037
18	−0,185	0,001	0,011	0,023	−0,032	−0,027	0,065	−0,009	−0,002	−0,117
19	0,118	−0,088	−0,077	−0,278	0,067	0,237	−0,096	−0,032	−0,093	−0,183
20	0,045	−0,053	0,074	0,093	0,139	−0,058	0,580	−0,237	−0,035	−0,149
21	−0,099	−0,030	0,053	−0,015	−0,050	−0,129	0,054	0,031	0,000	0,299
22	−0,031	−0,093	0,055	−0,157	0,074	−0,132	0,105	−0,104	0,031	0,024
23	−0,177	−0,052	0,049	−0,039	0,124	−0,020	0,221	0,300	0,063	[illegible]
24	0,172	−0,102	0,047	0,259	0,099	0,050	0,033	−0,224	0,305	−0,074
25	−0,107	−0,275	−0,013	0,201	0,020	−0,231	−0,074	−0,047	−0,079	−0,234
26	−0,034	−0,162	0,070	−0,004	−0,341	0,092	0,093	0,015	0,204	0,011

J (8)

MATRIX OF COEFFICIENTS OF CONGRUENCE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	-0,863	-0,024	-0,159	0,039	0,054	0,084	-0,097	-0,085	-0,071	-0,013	-0,058	0,033	-0,008	0,012
2	-0,129	0,634	-0,057	-0,038	-0,036	-0,099	0,388	0,095	-0,110	0,017	-0,082	0,169	-0,090	0,023
3	-0,158	-0,059	-0,726	0,221	-0,056	-0,118	-0,064	-0,237	-0,147	0,009	-0,026	-0,026	-0,126	0,117
4	0,104	-0,012	0,087	-0,830	-0,045	0,001	-0,177	-0,072	0,044	-0,111	-0,079	-0,006	0,010	0,097
5	0,123	0,121	-0,131	0,246	-0,004	-0,583	-0,136	0,163	0,616	0,087	0,098	-0,166	0,007	-0,456
6	-0,271	0,139	-0,190	0,002	0,090	-0,008	0,103	0,150	0,070	0,141	0,312	-0,141	-0,056	0,580
7	0,052	-0,192	0,015	-0,050	-0,010	0,154	0,050	-0,781	0,136	-0,058	0,028	0,061	-0,110	-0,051
8	0,173	-0,259	0,216	-0,020	-0,248	-0,030	0,227	0,005	-0,174	0,185	0,060	-0,013	-0,480	-0,045
9	-0,028	0,205	-0,020	-0,105	0,610	0,030	0,034	0,030	-0,036	0,041	0,025	0,048	-0,314	0,056
10	0,015	-0,132	-0,297	-0,102	0,040	-0,169	0,199	0,260	0,624	0,116	-0,227	-0,017	-0,287	-0,136
11	0,042	0,053	-0,029	0,051	0,066	-0,131	0,403	-0,216	0,108	0,083	0,757	-0,187	-0,209	-0,264
12	-0,086	-0,140	-0,200	0,170	-0,441	0,249	-0,326	-0,033	0,024	-0,377	0,139	-0,193	-0,254	0,023
13	0,133	0,145	0,095	0,022	-0,009	-0,089	-0,126	0,080	-0,054	0,111	-0,016	-0,687	-0,297	-0,113
14	0,150	-0,058	0,401	0,133	-0,075	-0,095	0,051	-0,092	-0,003	-0,321	0,119	0,248	0,105	0,340

APPENDIX K

DATA FROM THE HIGHER-ORDER FACTOR ANALYSIS OF 132 FIRST-ORDER OAI FACTORS

(1) Table 74. Matrix of Intercorrelations Among the 132 First-Order OAI Factors

(2) Table 75. Eigenvalues, Cumulative Proportions of Variance, and Communalities from the Higher-Order Factor Analysis of 132 First-Order OAI Factors

(3) Table 76. Higher-Order Factor Matrix Before Rotation (132 Variables, or First-Order Factors)

(4) Table 77. Loadings for 28 Orthogonally Rotated Higher-Order Factors (132 Variables, or First-Order Factors)

K (1)

CORRELATION MATRIX

	1	2	3	4	5	6	7	8	9	10
1	0.83038									
2	0.00442	0.86151								
3	0.00045	-0.00221	0.86492							
4	-0.00022	0.00481	-0.00264	0.82289						
5	-0.00714	-0.00419	-0.00531	-0.00031	0.78806					
6	0.01119	-0.00701	-0.00325	0.00480	-0.00924	0.79341				
7	-0.00588	-0.00598	-0.00099	-0.00675	0.02370	0.02274	0.49263			
8	-0.02444	-0.01386	0.00194	0.00066	-0.03025	-0.01380	-0.03702	0.75992		
9	0.00051	-0.03114	-0.04034	-0.00638	-0.02171	0.00374	0.00698	-0.00355	0.73543	
10	0.00004	-0.00204	-0.00063	-0.00124	0.00806	0.00005	-0.00702	-0.00026	-0.01296	0.43272
11	0.00301	0.04731	-0.01081	-0.00560	0.00846	-0.00038	-0.01164	0.00948	-0.04527	-0.00626
12	-0.00203	-0.00400	0.03895	0.01293	0.00449	0.00278	-0.00278	0.00055	0.01814	-0.00090
13	-0.00190	0.01540	-0.00663	-0.00495	-0.02176	-0.00377	-0.04328	-0.02519	-0.01257	-0.00179
14	-0.00190	0.00712	0.02814	0.01063	0.02114	0.00463	0.00973	0.02636	0.01234	-0.00152
15	0.00445	0.00385	-0.00146	-0.03704	0.00507	0.00751	0.00003	0.00957	0.00339	0.00202
16	0.00217	-0.05148	0.01992	0.00823	-0.03997	0.00365	-0.01536	-0.02332	0.02449	-0.00266
17	-0.00965	-0.00581	-0.00870	0.01501	-0.00748	-0.00752	0.00916	-0.02548	-0.00531	-0.00261
18	0.01412	0.03477	0.02398	0.01289	-0.00344	0.00415	0.08005	-0.01243	0.02585	0.00204
19	0.00055	0.00449	0.02949	-0.00050	0.01786	-0.00171	0.00833	-0.00341	-0.05591	-0.00998
20	-0.00031	0.06077	0.00845	0.00603	-0.00237	0.01011	-0.00755	-0.01109	0.01665	0.00504
21	0.03682	0.36037	0.17373	0.10561	0.12088	-0.05022	0.01144	-0.04294	-0.59711	0.06537
22	0.22198	-0.08325	0.10191	0.11572	0.15796	0.22914	0.19013	-0.39206	0.10171	-0.02926
23	0.25525	0.39604	-0.01137	0.06180	-0.11845	-0.01094	-0.00921	-0.24959	0.03874	-0.00921
24	-0.08089	0.38859	-0.03691	-0.05670	-0.04428	-0.08798	-0.10695	0.05629	0.00632	-0.02503
25	-0.03973	0.04416	-0.03896	-0.03944	0.67860	-0.08428	0.09150	-0.20813	-0.04223	0.04321
26	-0.00062	-0.19507	-0.04649	-0.00643	0.03403	-0.00204	-0.02476	0.04148	-0.23921	-0.02355
27	0.00840	-0.08656	-0.10643	0.04942	-0.04821	0.03440	0.01836	-0.03475	0.26317	0.01353
28	-0.05512	-0.06981	0.06870	0.03978	0.00229	-0.00063	0.02546	0.28229	-0.06632	-0.01213
29	-0.05092	0.19303	0.03956	-0.04632	-0.05051	-0.07633	-0.03815	0.03016	0.04713	0.00743
30	-0.02715	-0.13232	-0.01981	-0.07812	0.03870	-0.11816	-0.01631	-0.02098	-0.01370	0.03445
31	-0.09917	-0.05106	-0.00501	-0.02493	-0.05464	0.19058	0.11981	-0.21285	0.04394	-0.02037
32	-0.04614	-0.06673	-0.00647	0.62312	0.00643	0.05442	-0.04618	0.02106	0.06027	-0.01265
33	-0.00593	0.00939	0.82362	0.00344	-0.03053	-0.01624	-0.00297	0.01421	-0.07303	-0.01669
34	0.39809	-0.02500	-0.01065	0.00620	-0.03260	0.57419	0.02432	-0.05239	0.03363	0.01021
35	-0.03265	0.02863	0.05927	-0.01488	-0.00379	0.11600	0.12529	0.13202	0.04453	0.00087
36	-0.01325	-0.00899	0.02020	-0.00925	0.03319	-0.05068	0.06391	-0.13416	0.02651	0.00139
37	-0.06575	-0.15942	0.00527	-0.03350	0.07420	0.05779	0.07252	-0.06683	0.09065	-0.02475
38	-0.02762	-0.05691	-0.02005	0.08318	-0.05567	0.22290	-0.00777	0.11101	-0.02770	-0.00757
39	0.00473	-0.00256	-0.03024	-0.04281	0.04499	0.05983	0.16161	-0.05786	0.00576	0.00896
40	0.13924	0.10437	0.05324	0.19688	-0.00271	0.15520	0.16596	-0.08877	-0.06289	0.00868
41	0.00631	-0.06742	-0.02655	0.00412	0.02247	0.01438	0.14533	-0.00681	0.02548	-0.00235
42	0.00324	0.21891	0.02038	0.10461	0.07435	-0.24899	-0.03987	-0.17297	-0.12343	0.03359
43	-0.02773	-0.08181	-0.00678	-0.01853	0.05191	0.08116	0.22463	-0.00514	0.02690	0.01031
44	-0.01263	-0.04210	0.05779	0.02254	-0.01908	0.00209	-0.01652	0.03234	-0.13966	0.02053
45	-0.02564	0.07138	-0.00492	0.04872	0.01526	0.04064	-0.04700	-0.06427	-0.04660	0.00842
46	0.01632	0.02346	-0.02795	0.05242	-0.00415	-0.04406	0.03147	-0.10231	-0.03605	0.00451
47	0.04300	0.12356	-0.01893	0.02792	0.07638	-0.02130	-0.04253	0.09614	-0.07021	0.01334
48	-0.00485	0.00741	-0.00944	0.01095	0.02789	0.00248	0.08908	-0.04826	-0.04617	0.00676
49	-0.00134	-0.19059	-0.03477	-0.07874	-0.11079	-0.08933	-0.26886	0.17358	-0.09723	0.03013
50	-0.04553	0.04618	-0.00567	0.12192	0.10117	0.04434	-0.00471	0.01939	0.03242	0.00235
51	0.00845	0.01276	-0.00100	-0.00443	-0.03807	-0.04290	-0.06540	-0.05399	0.02741	0.01665
52	0.02622	0.12034	-0.00291	-0.00046	-0.21941	0.05403	-0.13783	0.18698	-0.06510	0.00099
53	0.04092	-0.01156	-0.00734	0.03447	0.05541	0.09660	0.01217	0.03653	0.04395	0.00433
54	-0.00078	0.01600	0.00614	0.02746	0.01715	-0.03541	-0.03928	-0.12001	0.02669	0.01722
55	0.00999	-0.05061	0.02996	0.13822	-0.01837	-0.03639	0.06233	-0.02866	0.05263	0.00346
56	0.01486	-0.07908	-0.01504	-0.02707	-0.00566	-0.01661	0.18112	-0.15466	0.02270	-0.00300
57	0.02348	-0.03414	-0.02216	-0.06584	-0.04140	-0.09261	0.02249	-0.07382	0.00654	0.00559
58	-0.61087	0.07727	-0.06979	0.02772	0.04983	0.10349	-0.08809	0.05727	-0.01698	0.00776
59	0.04155	-0.08161	-0.01196	-0.03407	-0.02986	0.10492	0.00988	-0.24064	0.03936	-0.01278
60	-0.08063	-0.23006	0.02799	-0.05481	0.05524	0.01835	-0.01442	0.13285	0.07195	-0.03226
61	0.11863	-0.13615	0.11814	-0.10703	0.05577	0.13024	0.17928	-0.12983	0.21675	0.02335
62	0.05975	0.05804	-0.01660	-0.15613	0.04359	-0.05569	-0.07664	0.03775	0.04259	-0.00795

K(1)

63	-0.01668	-0.31171	0.02688	-0.03846	0.01641	0.14585	0.10689	0.00658	0.12861	-0.01391
64	0.06768	0.03642	-0.02780	-0.15614	-0.01827	-0.16547	-0.10395	-0.08475	0.09309	0.01175
65	-0.02106	0.10421	-0.07195	-0.01197	0.05333	-0.09378	-0.01162	0.02932	0.05696	0.01933
66	0.11180	-0.05773	0.07067	0.10948	0.02468	0.36753	0.07257	-0.00957	-0.01359	-0.00032
67	-0.06945	-0.19654	-0.00950	0.03693	-0.08589	0.08102	-0.04660	-0.06851	0.12461	-0.04024
68	0.07848	-0.01174	-0.05465	0.20168	-0.01484	0.10607	0.06296	-0.08585	0.04146	-0.04346
69	-0.16960	-0.09144	-0.05181	-0.01372	-0.14203	-0.10282	-0.12381	0.09901	0.09145	0.01409
70	-0.03433	-0.42914	-0.19487	-0.09900	-0.11243	0.12719	0.05785	0.00179	0.43930	-0.02862
71	-0.04334	0.44103	-0.00370	-0.04994	-0.04007	-0.07163	-0.03160	0.08826	0.12224	-0.02038
72	-0.14266	-0.07744	0.09073	-0.13867	-0.27196	-0.03901	-0.04206	0.58925	-0.00797	0.01615
73	0.17069	0.09030	-0.01417	0.02407	-0.03607	0.02877	-0.02558	0.03080	0.00994	-0.03478
74	-0.12015	-0.00941	-0.06895	-0.15028	0.04515	-0.09729	-0.01912	-0.02467	0.01839	-0.02489
75	0.04261	-0.00889	0.10863	0.00724	0.14016	-0.03541	-0.00832	-0.01257	-0.19431	0.06842
76	-0.18016	-0.08283	-0.16053	-0.00682	0.08271	-0.01200	-0.00881	0.04118	-0.16658	-0.01485
77	-0.06028	0.05402	-0.06769	-0.04041	-0.03323	-0.01306	-0.06770	0.07579	-0.05911	-0.01274
78	0.05521	0.58074	-0.07512	0.04102	-0.09045	-0.01131	0.06421	-0.10967	0.13998	-0.01294
79	-0.11406	-0.18973	-0.15264	-0.07584	0.02526	0.01414	-0.04084	0.10888	0.26484	-0.01766
80	0.00135	-0.12207	0.04140	0.00482	-0.01122	0.07478	-0.02437	-0.05280	0.03948	-0.00034
81	0.00289	0.13535	-0.13940	0.00749	-0.04351	-0.00799	-0.04790	0.08932	-0.21375	0.04169
82	0.06648	0.32527	0.06660	0.17451	0.02522	-0.01024	-0.01863	-0.05484	-0.19974	-0.00494
83	-0.00809	0.08448	-0.03208	-0.00395	-0.05597	-0.02576	0.04032	0.00499	-0.34609	-0.00162
84	-0.06688	0.15313	0.00147	-0.02997	0.05256	-0.10236	-0.03972	0.16204	-0.11146	0.03171
85	-0.01632	-0.06405	-0.02877	-0.13620	-0.10230	-0.00280	0.01621	0.03398	0.11465	-0.02445
86	0.08309	-0.03158	0.05290	-0.06116	0.04578	-0.04289	-0.02367	0.01285	-0.27309	0.06942
87	-0.02045	-0.02322	0.64288	-0.03795	0.02502	-0.02578	-0.00762	-0.00589	-0.21296	-0.00883
88	-0.07017	-0.38035	-0.04440	-0.09985	-0.04104	0.03454	-0.01347	0.02578	0.27120	0.03336
89	0.00191	0.23791	-0.06167	-0.05225	0.25430	-0.06671	0.06448	-0.03272	-0.13464	-0.01229
90	-0.03857	-0.01185	0.00093	0.00797	0.05812	-0.05093	-0.02902	0.02229	-0.32132	0.22222
91	-0.05073	-0.13597	-0.13435	-0.02261	-0.00002	0.01778	-0.01392	0.00674	0.02863	-0.03255
92	0.01313	0.03537	0.03234	0.06247	-0.00749	-0.02320	0.08691	-0.12362	-0.03131	0.03272
93	-0.01688	0.70962	-0.00959	0.00140	-0.04238	-0.03434	0.02097	0.09236	0.09894	-0.01965
94	0.81256	-0.01128	0.03516	0.02428	-0.01991	0.04429	-0.02508	-0.01913	0.00027	-0.00003
95	-0.02896	-0.01422	0.00726	0.61297	-0.01057	0.01247	-0.01106	0.03404	0.06741	-0.00461
96	-0.01754	0.03970	0.87176	-0.01564	-0.01360	-0.01831	-0.00072	0.00306	-0.00465	-0.01726
97	0.13217	0.20484	-0.02708	0.02060	0.10019	0.08332	0.04607	-0.01451	-0.02520	-0.01109
98	-0.02421	-0.05630	0.01036	-0.00441	0.77312	-0.05175	0.02685	-0.04518	-0.03499	0.05412
99	0.03882	-0.01598	-0.02496	0.01476	-0.01624	0.78429	0.07624	-0.05861	0.00678	-0.00135
100	0.01918	0.06643	0.14291	0.00455	0.02223	-0.01163	-0.03413	0.02198	-0.62364	0.07460
101	-0.02846	-0.00745	-0.06411	0.44067	-0.04150	-0.02713	-0.04605	0.01321	-0.05448	-0.00512
102	0.01794	0.18419	-0.00851	-0.00795	-0.00933	0.01015	-0.03864	0.03786	-0.12378	0.00443
103	0.09166	0.01933	0.03689	0.25347	-0.01172	-0.03233	0.02896	0.03611	-0.00361	0.00493
104	-0.00665	-0.02356	0.04407	0.06566	-0.01300	0.00631	-0.01256	0.01745	0.03927	0.00261
105	-0.02080	0.30213	-0.06220	0.02260	-0.00999	-0.03440	0.00636	0.01536	-0.21251	-0.03542
106	0.01219	0.00800	0.00337	0.03164	-0.07927	-0.19720	-0.25013	-0.14512	-0.10417	-0.00783
107	0.00098	0.02037	-0.00400	-0.00897	0.05195	0.00175	-0.02770	0.04097	0.00143	0.57495
108	0.06106	0.04909	-0.00417	-0.02313	-0.03944	0.00042	-0.26636	0.29265	0.01320	0.01081
109	0.01247	0.04120	-0.00230	0.34957	0.05847	-0.05155	0.02731	-0.01701	0.01545	0.00350
110	-0.01631	0.21473	-0.03647	0.01244	0.20037	-0.04542	0.03486	0.01439	-0.32380	0.03658
111	-0.05438	-0.03051	-0.00797	0.01767	0.21674	0.00824	0.00195	0.03677	0.08115	-0.00468
112	-0.03017	0.10328	-0.12917	-0.00310	-0.00974	-0.07140	0.04466	0.03318	0.00791	-0.01931
113	0.24299	0.06257	-0.00355	-0.00176	-0.05012	-0.07030	0.09035	-0.05502	0.01773	-0.00127
114	-0.02483	0.10725	-0.00232	0.05294	-0.01934	-0.00691	-0.13035	0.23372	-0.05258	0.01370
115	-0.02328	-0.01017	0.00288	0.15420	-0.04385	0.06506	-0.06865	0.00870	-0.01194	-0.02165
116	0.01981	-0.03894	0.06751	-0.00626	-0.01798	-0.09369	-0.03888	-0.02098	0.01254	0.00528
117	0.01114	0.07271	0.01078	0.09071	0.03658	0.08718	0.00265	0.05752	-0.10122	-0.01154
118	0.00300	0.03051	-0.00984	0.06802	0.08161	-0.07629	-0.10284	-0.33493	0.02061	-0.00507
119	-0.17184	-0.54079	-0.19762	-0.15888	-0.14370	-0.01369	-0.06769	0.21142	0.33809	-0.05819
120	0.11668	-0.21139	0.03344	0.12493	-0.08123	0.37503	0.19218	-0.12117	0.04015	-0.04045
121	-0.00358	0.04022	0.02680	0.09252	0.05095	-0.09624	-0.08083	-0.06195	-0.17598	0.02043
122	0.05531	-0.07556	0.09924	0.05736	-0.04005	0.08553	-0.00040	0.05396	-0.07994	0.02438
123	-0.04115	-0.04475	-0.03752	0.23886	0.01504	0.04045	-0.02048	0.04240	0.01485	0.08199
124	0.09213	-0.16479	0.02112	-0.01818	0.00869	0.05302	0.01010	-0.13559	0.35996	0.01926
125	-0.02010	0.02754	0.00443	0.06650	0.00351	-0.04423	0.09510	0.05739	0.01606	-0.00410
126	-0.07405	-0.10729	0.01581	0.02227	0.04181	-0.01856	-0.00534	-0.01525	-0.27632	0.05727
127	-0.07468	0.00979	-0.03332	0.00444	-0.07539	-0.03725	-0.10805	0.00059	-0.00328	0.02223
128	-0.11664	0.25584	-0.27318	-0.09805	0.07637	-0.00127	-0.00315	0.02569	0.03728	0.01989

K(1)

129	0.04839	0.04343	0.00763	-0.34895	0.04821	-0.03486	0.05863	-0.00694	-0.01392	0.00127
130	-0.05982	0.01326	0.26226	-0.10051	0.07716	-0.06831	-0.04802	0.14233	-0.25514	0.05280
131	-0.00593	-0.04745	0.06528	0.13120	0.08823	-0.02526	-0.05258	0.06696	-0.01943	-0.000[illegible]7
132	0.03748	-0.06988	0.03777	-0.09030	0.06815	-0.09664	0.01543	-0.06183	0.03443	0.03135

	11	12	13	14	15	16	17	18	19	20
11	0.69907									
12	0.00943	0.65029								
13	-0.00459	0.00417	0.50425							
14	-0.01823	0.01084	0.00222	0.52020						
15	-0.01070	0.00846	-0.01480	-0.00129	0.54814					
16	0.03544	-0.01752	0.00810	-0.05759	-0.01371	0.72174				
17	0.02528	0.01350	0.01301	0.00697	0.03077	-0.00851	0.55381			
18	-0.00139	-0.01329	0.04169	0.03521	-0.02891	0.03517	-0.02400	0.58707		
19	-0.02212	0.00047	0.00991	-0.02868	0.02042	-0.02774	-0.01369	-0.00900	0.51134	
20	-0.02301	-0.00752	-0.00908	0.01683	-0.01454	0.04377	-0.03159	-0.01479	-0.00938	0.47136
21	0.12925	0.05255	0.00390	0.03903	-0.00336	-0.12185	0.13582	0.01732	0.03543	0.04261
22	-0.01172	0.01861	-0.05867	-0.04064	0.03594	0.09783	-0.04054	0.03939	0.00314	0.00603
23	0.05387	-0.04093	0.15962	-0.04572	-0.10126	0.17565	0.05666	0.21847	-0.06665	0.14008
24	0.60488	-0.01765	-0.00104	-0.05447	0.01568	0.02581	-0.05241	-0.03668	0.02509	0.04975
25	0.00368	-0.00447	0.06000	-0.01242	0.00963	-0.14531	0.02894	-0.00784	-0.00336	0.01137
26	0.28596	-0.02048	0.06466	-0.02336	-0.03130	0.08045	0.03437	-0.04070	-0.14711	-0.00898
27	0.12450	0.01406	-0.00217	-0.06734	-0.03940	0.22459	0.07765	0.03256	-0.20214	-0.04367
28	0.12477	0.02704	-0.05311	0.03443	0.02764	-0.10778	-0.08855	0.02269	-0.00558	-0.09933
29	-0.06546	0.01261	-0.00823	0.02242	0.01365	-0.05793	-0.12450	0.00545	0.05137	0.07851
30	0.01330	-0.00228	0.02680	-0.04405	0.01111	-0.02692	0.02720	0.02036	-0.03628	-0.07968
31	-0.05859	-0.00089	-0.02873	-0.05364	-0.01634	0.10908	-0.05769	-0.05726	-0.01644	0.13118
32	-0.04377	0.07044	-0.01739	0.02460	0.29971	-0.00388	0.23928	-0.01351	0.05565	0.00247
33	-0.00472	0.15091	-0.01932	-0.07313	-0.00566	0.01697	-0.05724	0.02507	0.00619	0.01695
34	0.01112	-0.00846	-0.05084	-0.01833	0.00437	-0.00641	0.05934	-0.05542	-0.00715	0.10696
35	-0.05257	-0.03949	-0.01962	0.20032	0.00569	0.13989	-0.02149	0.41387	-0.06711	0.03263
36	-0.01937	-0.03273	-0.16542	0.03154	0.02767	-0.00364	0.00541	-0.07609	0.02516	-0.07635
37	-0.05129	-0.02393	-0.15350	-0.06766	-0.01495	0.02825	0.02341	-0.03131	0.04734	-0.09438
38	-0.05594	0.01717	0.02683	-0.01730	0.07866	-0.11085	-0.07917	-0.02645	-0.04664	-0.03212
39	-0.04474	-0.00977	-0.00623	0.02231	0.03586	0.02639	0.01143	0.01037	0.01406	-0.01751
40	-0.03811	-0.03872	0.07308	-0.06233	-0.18515	0.04161	-0.29473	0.13027	-0.03692	0.01892
41	-0.00725	0.01304	-0.13095	-0.03705	-0.02802	-0.00695	0.01535	0.08443	-0.00269	-0.10833
42	0.03597	-0.02586	0.06534	0.02501	-0.05080	-0.14268	0.06902	-0.00167	0.03447	0.16055
43	-0.03874	-0.01240	-0.04685	0.02308	0.02389	0.10234	0.02300	-0.02507	-0.05124	-0.01881
44	-0.04642	0.07480	0.01519	-0.05037	0.01744	-0.07679	-0.03702	-0.03583	0.21022	0.00944
45	0.05249	-0.02835	-0.02658	-0.43889	-0.03579	0.06407	0.01167	0.06255	-0.00246	0.03265
46	-0.00913	0.07500	-0.02272	0.03622	-0.00874	-0.02240	-0.01147	0.04639	-0.01263	-0.02212
47	0.09578	-0.01536	0.08310	-0.05585	0.04081	0.01236	-0.01290	-0.04208	0.00977	-0.10514
48	-0.00092	-0.01368	0.03137	0.01141	0.03690	-0.00483	-0.00276	0.00663	-0.01887	0.00752
49	0.00781	0.00882	0.00335	-0.18993	-0.02643	-0.01786	0.06672	-0.31592	-0.06191	-0.04565
50	-0.00659	-0.02123	-0.01677	0.01169	-0.00199	0.10805	0.08485	0.02107	-0.05928	-0.00407
51	0.05064	0.06501	0.02937	-0.20707	-0.02269	-0.04642	0.09146	-0.10447	0.04594	-0.02219
52	0.07856	0.00648	0.23607	0.09031	0.04547	-0.09717	0.05671	0.03901	-0.05478	0.00375
53	0.07701	-0.01970	-0.04519	-0.00553	-0.00444	-0.03765	-0.15712	-0.10451	-0.00119	-0.06274
54	0.01416	-0.01687	-0.05336	0.00470	-0.02510	-0.00818	-0.00284	-0.13292	0.02093	-0.04960
55	-0.04186	0.59662	0.01036	0.08319	-0.07999	-0.00781	0.05730	-0.02782	-0.01122	0.05092
56	-0.04365	-0.00968	-0.09595	-0.02138	0.02948	0.02050	-0.00135	-0.02580	-0.06704	0.04410
57	-0.02654	0.02667	0.00338	-0.00112	0.00103	-0.10867	0.11728	0.08545	0.00290	0.04209
58	0.03300	0.06043	0.12325	0.05131	0.04111	0.00658	-0.05288	-0.19150	0.02318	-0.05073
59	0.00012	-0.00802	-0.15476	-0.01236	-0.01781	-0.01476	0.09133	-0.11454	-0.00524	0.01612
60	-0.03457	0.05772	-0.02900	0.20109	0.02210	-0.08053	-0.07157	-0.00332	0.04453	-0.10475
61	0.10535	-0.03561	-0.23371	0.01589	0.04024	0.09699	-0.09812	-0.01373	-0.01423	0.02748
62	0.01238	-0.07206	0.07922	0.00559	-0.03944	0.01089	0.13300	0.07002	-0.05333	0.03136
63	-0.23515	-0.00024	-0.07479	0.16019	0.00041	-0.02529	-0.04392	0.03012	0.05393	-0.00322
64	-0.04538	-0.03188	0.00041	-0.02827	-0.07648	0.07090	0.07665	-0.00899	-0.08466	0.04223
65	0.07355	-0.05792	0.01466	0.02712	-0.03685	-0.01836	0.02678	-0.00194	-0.02269	-0.04844
66	-0.04370	0.02614	-0.03374	-0.08378	0.04840	0.02661	-0.15280	0.02940	-0.08697	-0.04707
67	-0.13629	0.06953	-0.10421	-0.01414	0.01708	0.04536	0.00706	-0.03559	-0.00497	0.03119
68	-0.05244	-0.02058	-0.00147	0.03624	-0.01563	-0.01915	0.04588	-0.01784	0.04869	0.05473
69	0.00335	0.03706	0.05667	-0.02937	0.03780	0.07730	-0.01668	-0.07784	0.00096	-0.00041

K(1) 70	-0.07756	-0.03550	-0.01587	-0.05110	-0.00004	0.20290	0.00983	-0.02848	-0.11009	-0.11782
71	0.43516	-0.02822	0.01033	-0.01256	0.02382	-0.02518	-0.12712	0.07455	0.16676	-0.06327
72	-0.03115	0.02082	-0.19492	0.04887	0.07343	-0.11699	0.01167	-0.04424	0.06605	-0.01060
73	0.01341	-0.01692	0.06003	0.00029	-0.00321	0.09322	-0.06444	0.00981	0.00164	0.00731
74	0.06870	0.03486	-0.01729	-0.00397	-0.01195	-0.02052	0.31176	-0.04549	0.02436	0.01032
75	0.14867	-0.02296	0.03648	-0.05433	-0.02260	0.07661	0.03910	0.04118	-0.05528	0.07547
76	-0.12457	0.04174	-0.04778	0.00150	0.03752	-0.19490	0.08770	-0.28507	0.09369	-0.04839
77	0.33651	-0.00255	0.04599	-0.08180	-0.01634	-0.02309	-0.07306	-0.15425	-0.03179	-0.06963
78	-0.16065	-0.00509	0.04703	0.04503	-0.02533	-0.04477	0.01868	0.06629	-0.05325	0.23521
79	-0.19976	0.03035	-0.05124	0.06024	0.09886	-0.17136	-0.22544	-0.17481	0.12493	-0.00047
80	-0.02794	0.01127	-0.03955	0.02895	-0.00388	-0.03627	-0.00933	-0.02617	0.02501	-0.06604
81	0.08435	-0.02526	-0.01992	-0.05167	0.02606	-0.12392	-0.09304	-0.15070	0.00512	-0.12200
82	0.02600	0.01220	-0.00100	0.09761	0.02821	0.05004	0.14348	0.00965	0.13255	-0.01077
83	0.05006	0.02327	-0.00199	-0.05954	0.03532	-0.03207	0.07143	-0.05326	0.05509	0.00890
84	-0.01492	0.00141	0.02244	0.15918	0.03214	-0.60189	-0.19434	-0.06354	0.05199	0.04661
85	0.07146	-0.09964	-0.04088	-0.03707	0.01279	0.07257	-0.09245	0.02319	0.05348	-0.07247
86	0.07326	-0.00376	0.03260	0.00196	0.00010	0.17952	0.00749	0.02837	0.18192	0.07617
87	-0.00816	-0.03958	0.00284	0.00288	0.02041	0.05342	-0.02903	-0.01994	0.07093	0.01877
88	-0.25274	0.00593	-0.04687	0.06049	0.02441	0.03782	0.06521	-0.05009	-0.02404	0.04300
89	-0.08948	0.01444	0.03655	-0.03762	0.00258	-0.35846	0.13307	0.00162	0.01279	-0.03343
90	0.04597	-0.00606	0.02810	0.06443	-0.03609	-0.06623	0.07162	-0.03583	-0.03899	0.02935
91	-0.04612	0.03818	-0.03559	-0.05961	0.05779	0.05138	0.10401	-0.09520	-0.01339	-0.02120
92	0.01509	-0.03425	0.06981	0.01506	-0.05243	0.00585	0.12952	0.07487	-0.16383	0.06047
93	0.12995	0.01894	-0.06641	0.03317	0.04505	-0.21373	-0.11070	-0.00281	0.17430	0.01480
94	-0.01033	-0.01528	-0.18095	-0.01473	0.02529	-0.04501	-0.00153	0.04734	-0.01236	0.06362
95	0.00747	0.02794	-0.01807	-0.00015	0.31899	-0.00190	0.27444	-0.02058	0.04981	0.04518
96	0.00280	0.02240	-0.00727	0.01532	-0.03373	0.04522	0.02160	0.10755	-0.08726	0.02072
97	0.00733	-0.00853	0.36221	-0.02195	0.00474	0.06346	0.04830	0.20640	-0.03458	0.02806
98	0.06306	0.01904	-0.05720	-0.02297	-0.02991	-0.01112	0.02076	-0.02507	0.01386	0.06515
99	-0.01364	0.01744	-0.02109	-0.00842	-0.01258	-0.00865	0.06925	-0.04626	-0.01498	0.09559
100	0.03818	0.00929	0.00416	0.02168	0.03496	0.13697	0.05977	-0.02850	0.39075	0.01842
101	0.01668	-0.01169	0.03403	0.06772	-0.47580	0.03393	-0.01077	0.17560	0.00332	0.01491
102	0.05265	-0.03882	-0.00738	-0.05671	0.00048	0.15067	0.00653	0.01501	-0.12015	-0.00311
103	-0.04134	-0.01908	0.03404	-0.04953	-0.03822	-0.00392	-0.22509	-0.03785	-0.02145	0.06657
104	-0.00717	0.69409	0.01430	0.01968	-0.01494	-0.02943	0.01400	0.04561	-0.03663	-0.04763
105	0.03331	-0.00545	-0.05370	-0.01151	0.00654	0.03994	0.29432	-0.03039	-0.16512	-0.22944
106	0.11902	0.05377	0.07169	-0.24484	-0.08626	-0.14195	0.08373	-0.30729	0.00717	0.03481
107	-0.02250	-0.00851	0.04498	-0.03905	0.00380	0.00395	0.00621	0.00757	0.02402	0.00753
108	0.06991	-0.00822	0.21691	0.01113	0.00844	-0.07207	0.03206	0.05088	0.03580	-0.04794
109	-0.00748	-0.06017	0.00799	0.00910	-0.08277	0.05505	0.02432	-0.01017	-0.00446	-0.00291
110	-0.05063	0.03009	-0.00897	0.07433	-0.02735	-0.55656	0.05244	-0.06594	-0.11084	0.01638
111	0.03965	-0.00958	0.02018	0.18599	0.09574	-0.31231	-0.12159	0.09860	0.17308	-0.10997
112	0.04641	-0.04770	-0.08959	-0.02451	-0.13031	0.05210	0.08279	0.18644	-0.27817	0.10239
113	0.04935	-0.02265	0.11703	-0.02859	-0.05643	0.00407	0.07286	0.08841	0.03169	-0.05486
114	-0.01494	0.04214	0.32349	0.07425	0.03158	0.06271	-0.02972	0.03844	-0.08445	0.12547
115	-0.04291	-0.02184	0.02965	-0.00984	0.14024	-0.00940	-0.00397	-0.05094	-0.02574	-0.10448
116	0.00829	0.02518	0.04456	0.25592	-0.13577	-0.04476	0.03007	0.06482	0.09651	0.16676
117	0.05219	0.05687	-0.06192	0.03096	-0.00414	0.07521	-0.27773	-0.00158	-0.01604	0.02572
118	-0.04279	0.03184	-0.15438	-0.01537	0.04417	0.05553	-0.00505	0.04752	-0.05861	0.04093
119	-0.19520	-0.02115	-0.03543	-0.01606	0.02486	-0.02029	-0.09036	-0.11551	-0.01058	-0.14654
120	-0.15744	0.03915	-0.14994	0.08590	0.07392	0.11685	-0.00039	0.07303	-0.03670	0.07300
121	-0.11692	0.05284	0.11528	0.00234	0.00025	-0.09450	0.14218	-0.01855	-0.04829	0.15048
122	-0.04007	-0.00830	-0.00154	-0.00441	-0.02386	-0.09492	-0.22690	-0.02627	0.02045	-0.02267
123	-0.02754	0.06680	0.00346	-0.03311	0.08964	-0.00271	0.03615	-0.03174	0.03032	-0.08057
124	-0.03653	-0.02586	0.00042	0.01383	-0.02647	0.25524	0.09640	0.07994	-0.10228	0.02548
125	-0.01879	-0.02077	0.05390	0.22931	-0.02915	-0.03411	-0.06385	-0.00036	0.04545	-0.07107
126	0.05083	-0.02586	0.05380	-0.03919	-0.06169	0.06293	0.11067	-0.05934	-0.05076	-0.06248
127	-0.10361	0.03474	0.01999	-0.05357	-0.07970	0.11334	0.12512	0.08717	-0.00795	-0.08229
128	0.20062	-0.02038	-0.03399	-0.00535	0.02577	-0.17134	0.07402	-0.16549	-0.00463	-0.03891
129	0.02394	-0.16936	-0.02726	0.06545	-0.06097	0.10075	-0.03353	0.04755	-0.05482	0.01042
130	0.02947	0.03572	-0.03368	0.12376	0.03307	-0.24198	-0.13030	0.00680	0.14521	-0.07713
131	0.01590	0.05313	0.11556	0.03591	0.03064	-0.01800	-0.13887	0.14168	-0.05077	-0.02612
132	0.07920	0.01521	0.01709	-0.11348	-0.03807	0.01770	-0.01965	0.04191	-0.05149	0.06873
	21	22	23	24	25	26	27	28	29	30

k (1)

21	0.81040									
22	0.00795	0.65501								
23	0.03952	0.02623	0.67514							
24	0.04613	-0.01908	0.03095	0.75225						
25	0.07371	0.05110	-0.01880	-0.03466	0.66824					
26	0.05862	-0.01937	-0.00345	0.06652	0.06041	0.40330				
27	-0.02991	0.03255	0.03870	-0.02350	0.04144	0.00078	0.46659			
28	0.02015	0.00169	-0.02356	-0.02439	-0.09147	0.05365	-0.03586	0.40670		
29	0.02996	0.08010	-0.00359	0.10393	-0.07016	-0.06406	-0.05851	-0.06258	0.30377	
30	-0.07103	-0.02328	-0.00536	0.02497	0.06889	0.10695	-0.04389	-0.00097	0.02146	0.26091
31	-0.06242	0.15989	-0.01058	-0.05431	-0.00416	-0.06020	0.05679	-0.10622	0.03350	-0.00888
32	0.02039	0.00460	-0.02027	-0.10940	-0.01583	-0.00925	0.05009	0.01992	-0.04757	-0.01014
33	0.17638	0.09216	-0.02162	-0.03638	-0.02390	-0.02241	-0.09981	0.04651	0.05209	0.02219
34	-0.02025	0.30787	0.05780	-0.07845	-0.10910	-0.00071	0.04989	-0.02540	-0.04793	-0.10869
35	-0.01175	0.01936	0.08256	-0.04113	-0.05768	-0.03183	0.04953	0.02861	0.04083	-0.01753
36	-0.01088	0.03715	-0.04711	-0.03992	0.01720	-0.03572	0.01609	-0.00710	0.00876	-0.05323
37	-0.13926	0.09266	-0.08739	-0.11312	0.04746	0.01849	0.03044	-0.03649	-0.03923	0.03438
38	-0.00991	0.02479	-0.11515	-0.07202	-0.07331	-0.00519	-0.02215	0.06487	-0.02939	-0.08224
39	-0.00814	0.03554	-0.00501	-0.04531	0.05475	-0.02788	0.01144	-0.01328	-0.00998	-0.00242
40	0.08191	0.19088	0.13624	-0.02062	-0.00813	0.00430	0.00235	-0.01433	-0.01183	-0.07649
41	-0.02035	0.00638	-0.04086	-0.05397	0.03679	0.00545	0.04799	0.05640	-0.02716	0.00391
42	0.22728	0.06566	0.08544	0.14094	0.12190	-0.06134	-0.07766	-0.04965	0.10495	-0.07259
43	-0.05413	0.10426	-0.04579	-0.07504	0.02758	0.00619	0.04125	-0.00421	-0.03121	-0.01045
44	0.07300	-0.05246	-0.06095	-0.03467	0.02656	0.02868	-0.09202	0.02015	-0.00071	-0.02193
45	0.04943	0.03805	0.07295	0.10286	-0.02797	0.00822	-0.00605	-0.01017	0.03525	0.00956
46	0.06536	0.05276	-0.00422	-0.02093	0.02061	-0.04027	-0.00897	0.02332	0.01709	-0.07248
47	0.03521	-0.04836	0.09720	0.08922	0.04666	0.04794	-0.04789	0.09779	-0.02034	-0.01187
48	0.04251	-0.00646	0.02186	-0.01871	0.04477	0.01035	0.01269	0.04136	-0.04998	-0.02685
49	-0.05619	-0.21789	-0.12427	-0.02626	-0.05589	0.09050	0.02274	-0.07002	-0.04851	0.03415
50	-0.00112	0.08104	0.03256	0.01876	0.05817	-0.01581	0.02315	-0.01608	0.05045	-0.00040
51	-0.00214	0.04660	0.01961	0.07029	-0.02245	0.01215	-0.02038	-0.02611	0.00899	0.01499
52	0.09151	-0.15847	0.05407	0.09141	-0.18555	-0.00204	-0.02438	0.03591	0.06361	0.03059
53	-0.02522	0.09914	-0.06255	0.04363	-0.01472	0.03609	0.02499	0.07765	-0.01882	-0.08890
54	0.01874	0.02268	-0.00213	-0.00555	0.00439	0.00806	0.02763	-0.01689	0.02727	0.01916
55	0.01645	0.07117	-0.03052	-0.06870	-0.03358	-0.01130	0.02196	0.03125	-0.01669	-0.06185
56	-0.02471	0.13356	-0.02203	-0.04409	0.01701	-0.00546	0.02119	-0.06653	-0.01253	0.02478
57	-0.02325	-0.07385	0.02579	-0.03281	-0.01523	0.01263	-0.02810	-0.09658	0.02186	0.07588
58	0.00955	-0.20332	-0.17252	0.09129	0.03091	0.02550	-0.02876	0.02317	0.02906	-0.02556
59	-0.05673	0.15336	-0.02754	-0.07276	0.01364	0.02210	0.01616	-0.03630	-0.00461	-0.01940
60	-0.17040	0.02148	-0.13939	-0.12149	-0.01048	0.01127	-0.03897	0.17433	-0.01336	0.01785
61	-0.19632	0.41761	-0.01243	0.08868	0.03282	0.02967	0.05933	0.09054	0.05599	0.02902
62	-0.00312	-0.00043	0.07633	0.07416	0.03276	0.02209	0.00594	-0.05956	0.04093	0.01141
63	-0.20823	0.08955	-0.16486	-0.31676	-0.05320	-0.02513	-0.06591	-0.04133	-0.02601	0.02112
64	-0.12944	-0.18927	0.07283	0.03218	0.06589	-0.02892	-0.03748	-0.29539	0.10517	0.18362
65	0.04270	-0.00344	0.04272	0.10249	0.03847	-0.01985	-0.01256	0.02122	0.05863	0.03738
66	0.01831	0.32596	-0.03101	-0.11970	-0.03465	0.03679	0.01103	0.10156	0.01859	-0.06481
67	-0.18845	0.06194	-0.12147	-0.07319	-0.07560	-0.01913	0.04808	-0.14331	0.08673	0.01769
68	-0.00148	0.13695	-0.00904	-0.06519	-0.05049	-0.04232	-0.00219	-0.01350	-0.03319	-0.08696
69	-0.14607	-0.03180	-0.09185	0.12810	-0.15256	0.00367	0.04966	-0.03544	0.21887	0.02555
70	-0.62593	0.13841	-0.05265	-0.15174	-0.10722	0.00957	0.25804	0.00464	-0.05378	0.06697
71	0.00401	-0.06419	0.13213	0.62919	-0.02331	-0.07691	-0.00018	0.08926	0.08467	-0.03351
72	-0.04616	-0.33559	-0.28585	0.04124	-0.35432	-0.01537	-0.09227	0.21683	0.09111	-0.00893
73	0.00518	-0.01389	0.31366	-0.05478	-0.01945	0.06522	0.02474	0.02401	0.07973	-0.03994
74	0.02457	-0.18986	0.03692	0.02836	0.11417	-0.03486	0.07104	-0.06725	-0.09303	0.09411
75	0.22709	0.03701	0.05176	0.00715	0.08038	0.20584	0.01684	0.04629	0.06373	0.02355
76	0.07711	-0.11383	-0.25440	-0.06476	0.10544	0.02544	-0.10456	-0.02946	0.01675	0.05131
77	-0.06501	-0.14692	-0.01148	0.34289	-0.02028	0.18426	-0.01494	0.10615	0.02216	0.03976
78	0.05923	0.00173	0.46633	0.13995	-0.02561	-0.21035	-0.08546	-0.17312	0.18328	-0.07074
79	-0.40396	-0.08107	-0.31112	-0.05093	-0.00626	-0.12877	-0.15419	0.03301	0.14014	0.01217
80	-0.07654	0.03796	0.02184	-0.08515	-0.01990	-0.03721	-0.06712	-0.04466	-0.02197	0.04645
81	0.19054	-0.07668	-0.06924	0.09893	-0.02685	0.00354	0.00258	0.12225	0.05725	-0.08557
82	0.41755	0.01271	0.13207	0.06097	-0.02735	-0.14504	-0.13471	-0.12088	0.01430	-0.19368
83	0.27996	-0.07065	0.01643	0.02319	-0.03453	0.07392	-0.09603	0.04743	-0.04150	-0.05375
84	0.14122	-0.18041	-0.17671	0.06397	0.09638	-0.04235	-0.31204	0.13081	0.14140	-0.03189
85	-0.21032	-0.00672	-0.04247	0.15305	-0.09271	0.00538	0.00407	0.05306	0.07241	0.07197
86	0.19415	-0.01670	0.10351	-0.01520	-0.01782	0.15312	-0.00832	-0.00530	-0.01284	-0.01538

87	0.19056	0.05247	-0.07730	0.00802	0.03519	0.03536	-0.14838	0.00288	0.01718	0.04175
88	-0.36548	0.04886	-0.17008	-0.26690	-0.05694	-0.07309	0.00845	-0.12381	-0.01905	0.07229
89	0.28031	-0.01407	-0.02917	-0.03643	0.28447	-0.00707	-0.13988	-0.02656	0.03456	0.06825
90	0.28981	-0.01135	-0.02954	0.00872	0.06044	0.20611	-0.10520	0.04699	0.02300	0.07421
91	-0.10489	0.02880	-0.11253	0.02038	-0.01825	0.04729	-0.02645	-0.05654	-0.06479	0.03111
92	0.13167	0.06459	0.15755	-0.01004	0.07176	0.02617	0.12140	-0.12012	-0.00931	-0.01645
93	0.13597	-0.11227	0.18510	0.46351	-0.04398	-0.22586	-0.14604	-0.00173	0.17533	-0.13410
94	0.00980	0.20388	0.15587	-0.06101	-0.06947	-0.00365	-0.04439	-0.02892	-0.01858	-0.03070
95	0.05422	0.02224	-0.00161	-0.04918	-0.05253	-0.02958	0.04940	0.00743	-0.01364	-0.04364
96	0.16638	0.12177	0.02587	-0.02516	-0.05207	-0.00639	-0.05548	0.07493	0.02787	0.00236
97	0.12721	0.24159	0.42811	-0.03038	0.27049	-0.00569	0.05844	-0.22832	-0.05426	-0.03187
98	0.08502	0.13179	-0.10542	-0.00134	0.59401	0.01639	0.02152	-0.02805	-0.09052	0.06597
99	-0.00707	0.23077	-0.02997	-0.10739	-0.07560	0.00962	0.05703	-0.01753	-0.05758	-0.14272
100	0.52974	-0.04311	0.00560	-0.02919	-0.01893	0.11647	-0.24710	0.04504	-0.01520	-0.04296
101	0.05048	-0.00539	0.08416	-0.01802	-0.05905	0.05802	0.02969	0.03931	-0.05234	-0.05652
102	0.15897	-0.03689	0.13179	0.55796	0.01413	0.30224	0.16407	0.09709	-0.00459	0.00786
103	0.04580	0.09022	0.02576	-0.04232	-0.03226	-0.01103	0.02333	0.03101	0.01315	-0.06159
104	0.02015	0.02497	-0.03186	-0.04567	-0.00197	-0.00056	0.02652	0.05849	-0.01869	-0.01098
105	0.33175	-0.06698	0.07929	0.02975	-0.01272	-0.03098	0.03973	-0.02893	-0.02344	-0.05067
106	0.09206	-0.07232	-0.06013	0.13870	0.00628	0.08394	-0.01452	-0.04546	0.01323	0.01132
107	0.04104	-0.03062	-0.02339	-0.03633	0.01258	-0.00284	0.01621	-0.00061	-0.00143	0.03339
108	-0.00552	-0.16237	0.04989	0.08032	-0.11709	0.01678	-0.01874	0.04561	-0.00323	0.04438
109	0.04065	0.11263	0.07867	0.01665	0.09250	-0.00926	0.06224	-0.02566	0.01484	0.00500
110	0.40161	-0.07881	-0.12959	-0.03268	0.24827	0.02036	-0.23049	0.03856	0.07403	0.04090
111	-0.00252	0.08029	-0.16753	0.00523	0.14305	-0.02663	-0.06735	0.14091	0.06505	-0.00451
112	0.10279	0.02489	0.15071	0.00463	-0.08032	0.11937	0.09470	0.02401	-0.05351	0.01798
113	0.03144	0.07335	0.24340	-0.02064	-0.00287	0.10352	-0.02739	0.02976	-0.07053	0.04543
114	0.03652	-0.20351	0.09061	0.03821	-0.01674	-0.00346	-0.00801	0.00320	0.01075	-0.01152
115	-0.01355	0.04042	-0.06426	-0.02193	-0.04511	0.00087	-0.03558	0.02911	-0.02318	0.02966
116	0.05769	-0.05088	0.00032	-0.01635	-0.05560	-0.11419	-0.08753	-0.00407	0.03637	-0.10230
117	0.19066	0.06173	-0.06159	0.01165	-0.06423	0.00293	-0.06813	0.01368	0.05925	-0.11257
118	0.02267	0.00333	0.00194	-0.06716	0.02553	-0.01046	0.03418	-0.00802	0.00123	-0.05695
119	-0.66451	-0.16266	-0.33908	-0.19646	-0.15202	0.03950	0.07985	0.10699	-0.02513	0.14836
120	-0.08145	0.26719	-0.05215	-0.26721	-0.11416	-0.03076	0.05257	-0.06932	-0.09731	-0.06433
121	0.19072	-0.10660	0.05356	-0.09770	0.10333	0.04170	-0.05526	-0.15684	0.04682	-0.05986
122	0.02836	0.06631	-0.07537	-0.07789	-0.05624	0.02021	-0.09155	0.10675	0.04052	-0.00164
123	-0.00995	-0.03163	-0.02755	-0.06286	0.02078	0.02648	-0.00357	0.03579	-0.06308	-0.00938
124	-0.31854	0.12144	0.11847	-0.06629	0.02140	-0.03788	0.23653	-0.16961	-0.07525	0.04933
125	0.02474	-0.08281	-0.04424	-0.04158	-0.00005	-0.05871	-0.00378	0.00692	0.02698	-0.03831
126	0.23758	-0.06647	-0.05433	-0.03836	0.06602	0.23654	0.05440	-0.02301	-0.10327	0.10694
127	-0.02913	-0.21248	0.03674	-0.09655	-0.03905	-0.06985	-0.01714	-0.18996	-0.03013	0.17922
128	0.04806	-0.14705	0.01588	0.26604	0.12280	0.01621	0.07007	0.05528	0.01229	0.04237
129	-0.01929	-0.05089	0.07331	0.06135	0.08328	0.02764	0.02728	-0.07271	0.03470	0.05240
130	0.18932	-0.18209	-0.15205	-0.03879	0.10109	0.03855	-0.27730	0.17300	0.00765	0.06831
131	-0.01011	-0.04671	0.04300	-0.06851	0.04787	0.03583	0.01847	0.12393	-0.06682	-0.02774
132	-0.09135	0.05938	0.01408	0.09430	0.11664	0.02490	0.06033	0.03301	0.00376	0.19440

	31	32	33	34	35	36	37	38	39	40
31	0.48424									
32	-0.00270	0.82101								
33	-0.00400	0.00138	0.81793							
34	0.02682	0.00365	-0.00408	0.75017						
35	-0.00458	0.00712	0.01011	0.00628	0.49264					
36	0.32839	-0.00280	-0.00460	-0.00254	0.00390	0.28407				
37	-0.00103	-0.00544	0.00010	0.00904	-0.01464	-0.00888	0.28402			
38	-0.01148	0.04476	-0.00364	0.02553	0.00181	0.00526	0.01082	0.50937		
39	0.04417	-0.00776	-0.00041	-0.00810	-0.00781	-0.01053	-0.01461	-0.00891	0.19871	
40	0.00676	-0.00412	0.01161	0.02963	0.02261	-0.00774	-0.01765	0.03969	0.01046	0.54180
41	0.02928	-0.00768	-0.00518	-0.01686	-0.02312	-0.00730	0.01155	-0.00115	0.01645	0.00531
42	-0.03753	-0.00593	0.00573	-0.02502	-0.05062	0.01210	-0.02223	-0.00241	0.00282	0.03231
43	0.03707	-0.00484	-0.00046	0.01299	0.01216	-0.01623	-0.00594	0.00062	0.03161	0.00178
44	-0.00119	0.00121	0.00105	-0.00314	-0.00372	0.00591	-0.00069	-0.00523	0.01347	0.00530
45	-0.00024	-0.01317	-0.00616	0.00766	-0.04617	0.00447	0.00007	0.01165	0.02176	0.01923
46	0.00726	0.03672	-0.00017	0.01105	0.00383	0.05112	-0.01347	-0.00779	0.01297	0.00023
47	-0.03920	-0.01926	-0.01864	-0.01342	-0.01020	-0.01582	-0.01810	-0.00391	0.01224	-0.00025

48	0.01889	0.00819	0.00131	0.00904	-0.00838	0.03293	0.04130	-0.00250	0.01699	-0.00590
49	-0.01687	-0.00149	-0.00331	-0.01943	-0.05895	0.02218	-0.00738	0.01568	-0.00269	-0.04780
50	0.02374	0.00733	-0.00202	-0.00502	0.02095	-0.00990	0.01475	0.01099	0.02618	-0.01231
51	0.01827	0.01361	0.00527	0.02235	-0.06014	-0.00508	0.00746	-0.00019	-0.00328	-0.01395
52	-0.00389	-0.00168	-0.00679	-0.00020	-0.00346	-0.08411	-0.03676	0.01020	-0.05096	-0.00961
53	0.04187	0.01200	0.00295	0.00126	-0.00724	0.01672	0.01290	0.08489	-0.00342	0.03540
54	0.00620	-0.00915	-0.00718	0.00104	0.01062	0.00463	0.00635	0.01137	-0.02297	0.01630
55	-0.00744	0.01972	0.03087	0.00143	-0.01911	0.01527	-0.01430	0.02786	0.01595	-0.00390
56	0.07660	0.00824	0.00621	0.01095	0.00504	0.02068	-0.00522	0.00055	0.05772	-0.02269
57	0.01159	0.01409	-0.00151	0.00789	-0.01482	0.06245	-0.01479	-0.01352	-0.03113	-0.00163
58	0.02437	0.00931	-0.01043	-0.08711	-0.00253	0.01657	0.00505	0.02323	0.00905	-0.04321
59	0.02931	-0.00630	-0.00489	0.02568	-0.01605	0.06319	-0.00484	-0.00124	-0.01313	-0.02113
60	-0.03593	0.00844	0.00937	0.01892	0.02322	-0.01975	0.01366	0.00480	0.06179	-0.02950
61	0.12251	-0.08679	0.11238	0.16939	0.03311	0.02999	0.21206	-0.07059	0.06466	-0.00470
62	-0.08734	-0.16914	-0.02093	0.03768	0.02287	-0.08232	-0.01460	-0.05078	-0.02296	-0.13338
63	0.12233	0.02385	0.01728	0.12612	0.06319	0.06928	0.02209	-0.09558	0.06292	-0.04795
64	0.01131	-0.11775	-0.03345	-0.07102	-0.07093	-0.05611	0.05004	-0.20158	0.00747	-0.07544
65	-0.05245	-0.03885	-0.07790	-0.11191	0.05358	-0.06888	-0.04045	-0.03434	0.02069	-0.03524
66	0.20789	0.09687	0.07539	0.23604	0.06792	-0.00450	0.03582	0.48290	-0.02471	0.23824
67	0.09766	0.16817	0.00307	0.05666	0.00576	0.11538	0.01581	0.07483	0.05479	-0.02235
68	0.05455	0.16881	-0.05101	0.24418	0.08016	0.06079	-0.04683	0.03150	-0.01592	0.12091
69	-0.01520	0.00894	-0.06377	-0.13220	-0.05493	-0.01998	0.06844	0.04620	-0.07433	-0.08471
70	0.12957	-0.01624	-0.19081	0.07374	0.06581	0.04262	0.17844	-0.01925	0.01898	-0.07212
71	-0.05975	-0.10036	-0.01092	-0.06508	0.02738	-0.00722	-0.11563	-0.06216	-0.04513	-0.01817
72	-0.09108	-0.02670	0.07813	-0.05065	0.05948	0.00774	0.00632	0.07431	-0.03423	-0.16728
73	-0.01496	-0.01215	0.00693	0.09291	0.01139	-0.01080	-0.00733	-0.03713	-0.03257	0.03284
74	-0.00149	0.00709	-0.03274	-0.05341	-0.05743	-0.00062	0.02311	-0.13132	0.03618	-0.43921
75	-0.03274	-0.01293	0.03052	-0.02220	0.03331	-0.01785	-0.02290	-0.02975	-0.00050	0.01157
76	0.01099	0.06307	-0.14349	-0.05003	-0.16758	0.02253	-0.00420	0.03268	0.04471	-0.13017
77	-0.02287	-0.05065	-0.04686	-0.02646	-0.09669	-0.00412	-0.02660	-0.02641	-0.06218	-0.00581
78	0.01365	-0.02513	-0.04679	0.00028	0.06447	0.00925	-0.08653	-0.05018	0.03882	0.09882
79	0.05274	-0.00250	-0.12243	-0.01450	-0.07025	0.03131	0.02315	0.10135	0.00447	-0.10679
80	0.04378	0.05588	0.03784	0.03062	0.00958	-0.01755	0.04289	0.04099	-0.03429	-0.01353
81	-0.05777	-0.04686	-0.10931	-0.04548	-0.06473	0.00922	-0.03161	0.08010	-0.01105	0.05937
82	-0.06218	0.13465	0.02799	-0.01378	0.01043	0.00111	-0.08972	-0.05687	-0.01437	0.03883
83	-0.03979	0.00642	-0.01870	-0.01296	-0.04412	-0.02396	-0.04251	-0.01278	-0.00290	-0.00585
84	-0.11431	-0.04778	0.03705	-0.07465	-0.08059	-0.02629	-0.10564	0.07379	0.01456	-0.00932
85	0.04876	-0.07504	-0.04265	-0.01202	-0.01765	0.00830	0.07063	0.01245	-0.08445	0.00372
86	-0.02027	-0.03932	0.04213	0.00350	0.01887	-0.00756	-0.01574	-0.05117	-0.00300	0.00256
87	-0.00975	-0.03293	0.62622	-0.01037	-0.01500	0.00170	-0.01845	-0.06070	0.00148	0.00613
88	0.05613	0.01862	-0.04246	0.01161	0.02139	-0.00351	0.09612	0.02420	0.02646	-0.11156
89	-0.04168	-0.02366	-0.04243	-0.05263	-0.06507	0.03716	-0.02069	0.07198	0.00021	-0.01874
90	-0.02450	-0.02326	-0.01653	-0.04727	-0.03287	0.00106	-0.02200	0.00049	-0.00726	-0.02573
91	0.03037	0.04191	-0.10534	-0.01788	-0.05888	0.01051	0.04269	-0.01063	0.02125	-0.06015
92	0.01239	0.00872	0.02969	0.00394	0.05805	0.00330	-0.00332	-0.00395	-0.01555	0.05625
93	-0.09062	-0.06465	0.00041	-0.03176	0.01513	0.02780	-0.14364	-0.00836	-0.00475	0.03607
94	-0.05981	-0.02172	0.01334	0.44969	-0.04893	0.02409	-0.05252	-0.03681	-0.03859	0.06158
95	-0.02339	0.81985	0.00352	0.01070	-0.00166	0.01885	-0.01036	0.03772	-0.02085	0.00853
96	-0.02888	-0.02567	0.83209	-0.01509	0.09911	0.01176	-0.00742	-0.00541	-0.00541	0.01071
97	-0.00358	-0.01813	-0.03242	0.01905	0.00545	-0.03840	-0.03818	-0.08160	0.02310	0.18852
98	-0.00864	0.00468	-0.00761	-0.01772	-0.02511	-0.02330	0.02909	-0.06045	0.02530	-0.02383
99	0.14165	0.04057	-0.02496	0.66548	0.09264	-0.06093	0.03865	0.19467	0.05305	0.09307
100	-0.03154	0.00353	0.10351	-0.01722	-0.02089	0.00436	-0.05790	-0.03345	-0.01628	0.04354
101	-0.03730	0.09295	-0.03987	-0.02799	0.06624	-0.03666	-0.02159	-0.03678	-0.02463	0.03395
102	-0.00847	-0.02185	-0.02241	0.01140	0.00557	-0.01793	-0.05727	-0.05547	-0.04915	0.01095
103	-0.00816	0.04152	-0.00339	-0.02770	0.00347	0.00280	-0.02307	0.00357	-0.02304	0.33751
104	0.01231	0.05373	0.13823	-0.02009	-0.01924	-0.03490	-0.00807	0.01800	-0.02946	-0.00036
105	-0.05450	0.02290	-0.01869	-0.01510	-0.00062	-0.00200	-0.03780	-0.05249	-0.01258	-0.05073
106	-0.18445	-0.04046	0.03364	-0.00205	-0.42200	0.04096	-0.05182	-0.05895	-0.07453	-0.01245
107	-0.02616	-0.00348	-0.00291	-0.00616	-0.00204	-0.00915	-0.01691	0.00265	-0.00473	0.02020
108	-0.27806	-0.05006	-0.02978	-0.01675	0.03669	-0.31588	0.00807	0.04904	-0.18527	-0.09195
109	0.03490	0.05358	0.00463	0.00109	-0.05568	-0.00570	-0.01087	-0.12321	-0.00599	0.00622
110	-0.05972	-0.02073	-0.00618	-0.03337	-0.08000	0.01720	-0.05432	0.07965	0.03048	-0.01575
111	-0.12395	0.06007	-0.02405	-0.02989	-0.00464	0.01865	0.00380	0.11406	-0.02152	-0.00446
112	-0.02636	-0.08734	-0.17760	-0.02546	0.11720	-0.03131	-0.02095	-0.01943	-0.02611	0.05543
113	-0.01249	-0.00215	-0.00549	0.01909	-0.00183	-0.04338	-0.00289	0.00771	0.04749	0.11102

114	-0.05761	0.07013	0.01796	0.10083	0.06522	-0.04683	-0.25523	0.10180	-0.01346	0.02175
115	-0.01304	0.24015	-0.01220	-0.01383	-0.03018	-0.02102	-0.01145	0.20205	-0.05226	0.02416
116	-0.10719	-0.02852	-0.00476	0.00339	0.06170	-0.00979	-0.06765	-0.07803	-0.01758	0.01988
117	0.04129	-0.02288	0.06723	-0.01813	0.04328	-0.02092	-0.02443	0.11014	-0.02922	0.10871
118	-0.08364	0.06744	0.00279	-0.01621	0.04599	-0.00125	0.03270	0.06036	-0.08122	-0.00218
119	0.01876	-0.02537	-0.17130	-0.07456	-0.03954	0.02332	0.15828	0.04493	0.02243	-0.18917
120	0.30889	0.20360	0.02001	0.29432	0.16225	0.05750	0.00344	0.15799	0.05152	0.07950
121	-0.01334	0.12112	0.02573	-0.01998	-0.06199	0.03439	-0.11472	0.01260	0.04790	-0.01177
122	-0.00680	-0.02680	0.12113	0.03917	-0.04533	-0.02155	0.01733	0.04702	-0.03014	0.18157
123	-0.03454	0.28545	-0.02180	0.00286	0.03914	-0.02476	-0.00868	0.06041	-0.01723	0.06845
124	0.06451	0.03076	-0.03295	0.06342	0.04092	0.00048	0.07774	-0.08629	0.02370	-0.00983
125	-0.09531	0.07633	-0.01460	-0.03876	0.06853	0.00604	-0.07301	-0.01981	-0.02877	0.12579
126	-0.02346	0.01607	0.02820	-0.05410	-0.02689	0.00657	0.03324	-0.06085	-0.00752	-0.00221
127	-0.03674	0.02242	-0.03136	-0.13043	0.04869	-0.05408	-0.02552	-0.04568	0.01521	0.00791
128	0.02577	0.03093	-0.25640	-0.02905	-0.10096	0.01761	-0.02033	-0.06402	-0.00493	-0.09844
129	0.05200	-0.39382	-0.03035	-0.02560	0.05781	-0.02526	0.04202	-0.28434	0.02772	-0.11352
130	-0.08439	-0.07152	0.24417	-0.10223	-0.01751	-0.01833	-0.03562	-0.00694	0.00139	-0.08452
131	-0.14660	0.06697	0.06998	-0.10324	0.07863	-0.05179	-0.06460	0.17177	-0.01264	0.11741
132	0.02791	-0.08357	0.05346	-0.02683	-0.00858	-0.03655	-0.01098	-0.00276	-0.04882	0.00637

	41	42	43	44	45	46	47	48	49	50
41	0.21377									
42	-0.04567	0.45701								
43	0.05297	-0.02697	0.27093							
44	-0.00809	0.00073	-0.00669	0.25815						
45	0.00861	0.00685	-0.01258	0.00043	0.36232					
46	-0.02111	0.01551	-0.01552	-0.01049	0.01431	0.27231				
47	-0.03362	-0.01731	-0.00320	-0.00990	0.06299	0.02258	0.35289			
48	0.02305	-0.00126	-0.00175	-0.00075	-0.02310	0.00210	-0.00607	0.09433		
49	-0.05033	-0.00447	0.00588	0.00101	-0.00668	-0.01426	0.00307	0.00638	0.50800	
50	-0.00066	-0.01574	-0.01701	-0.00411	-0.00462	-0.01064	-0.00355	-0.03149	-0.01362	0.27895
51	-0.02689	0.07329	-0.01515	0.00645	0.05088	-0.01576	0.01739	0.00287	0.03395	-0.01212
52	-0.00457	-0.02233	-0.03294	0.00114	0.03782	-0.05621	0.04436	-0.01356	0.00000	-0.02933
53	-0.00278	-0.03166	0.00045	-0.00019	-0.01629	-0.00094	0.01148	0.00255	-0.00759	-0.00343
54	-0.00630	0.02241	0.00626	-0.00314	-0.00407	0.01844	0.00456	-0.02710	0.02451	0.02179
55	0.00725	0.01612	-0.00266	0.02111	0.00414	0.01632	-0.02489	-0.00392	-0.01771	-0.01045
56	-0.01166	0.03571	0.01127	-0.00462	-0.00218	-0.00069	-0.02677	0.02033	0.00841	-0.02307
57	-0.00712	0.02578	-0.02717	-0.00707	-0.03472	0.03893	-0.01156	0.01543	0.01950	0.01460
58	-0.01564	-0.00407	-0.00255	0.00091	-0.01094	0.00995	0.03366	0.00898	0.04612	-0.00513
59	0.04430	-0.01066	-0.03279	-0.00322	0.01872	0.00147	-0.08348	0.00659	0.01170	-0.02756
60	0.01706	-0.05036	-0.00048	0.01101	-0.08020	0.02972	-0.04657	-0.02309	0.00918	-0.02897
61	0.07639	-0.03410	0.10345	-0.03025	-0.01050	-0.02073	-0.13926	0.01693	-0.15517	0.02712
62	-0.03734	0.06705	-0.04365	-0.18729	0.03721	-0.10277	0.11234	-0.00802	-0.02317	0.07908
63	0.02903	-0.24907	0.07389	0.02579	-0.15233	0.04877	-0.11572	-0.04889	-0.09077	-0.11811
64	0.07164	0.00559	-0.09304	-0.10257	-0.00402	-0.08583	-0.03860	-0.05970	0.04116	0.12630
65	0.05105	0.03768	-0.07536	-0.14627	-0.01164	-0.00007	0.14757	0.02124	-0.03025	0.06944
66	0.04140	-0.01919	-0.02662	-0.02916	0.01306	-0.01323	0.04527	-0.02958	-0.05363	0.06066
67	-0.00231	-0.07255	-0.02174	0.02520	-0.10019	-0.01371	-0.18975	-0.02056	0.01680	-0.08674
68	-0.05992	0.03200	-0.01679	-0.00394	-0.01390	0.20000	-0.14920	0.02711	-0.01649	-0.06359
69	-0.10466	-0.04384	0.01981	-0.03057	-0.01987	0.01655	0.00121	-0.01872	0.12076	0.01251
70	0.04885	-0.26989	0.08916	-0.10385	-0.01355	-0.04070	-0.10231	-0.05592	0.05392	-0.04283
71	-0.03736	0.09289	-0.08367	-0.04357	0.07891	0.01064	0.13174	-0.01222	-0.16452	-0.03412
72	0.02802	-0.09668	-0.00890	0.04450	-0.05129	-0.09797	-0.05075	-0.06939	0.17842	-0.09255
73	-0.01631	-0.04733	-0.02268	-0.00639	0.00437	-0.00186	0.05940	-0.01910	0.00701	-0.00420
74	0.01951	0.01901	0.00970	-0.02057	0.00111	0.00642	-0.00099	0.02342	0.01511	-0.00561
75	-0.01770	0.05752	0.00158	0.04306	0.05132	-0.02041	0.04250	0.00592	-0.01102	0.01395
76	-0.04137	0.01398	0.02688	0.07554	-0.00835	0.02851	0.02972	0.00975	0.13765	-0.04839
77	-0.04370	-0.02308	-0.02052	0.00125	0.04727	-0.01954	0.10201	0.03575	0.17035	-0.00058
78	-0.07343	0.14875	-0.03152	-0.08746	0.02448	0.01367	0.01176	-0.00482	-0.14903	0.03090
79	-0.00571	-0.08627	0.03878	0.02813	-0.09254	0.03076	-0.04839	0.04126	0.04009	-0.04047
80	0.04048	-0.10400	0.01506	-0.01079	-0.08620	0.01460	-0.05102	0.00100	0.08386	0.02410
81	-0.01709	0.05637	-0.00731	-0.01255	0.00399	0.05319	0.04578	-0.00377	0.06053	-0.02655
82	-0.02383	0.13193	-0.02165	-0.03361	0.00307	0.04227	0.10170	0.00356	-0.07073	0.06451
83	0.00115	0.06050	-0.02605	0.10185	0.05620	0.03838	0.05232	0.01603	0.03297	-0.00677
84	-0.05532	0.18534	-0.08737	0.09793	-0.07417	0.01439	[illegible].05302	0.01033	0.02081	-0.05957

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85	0.04966	-0.14684	0.00673	0.00049	0.04230	0.00234	-0.00461	-0.01007	-0.04583	-0.04241
86	-0.00864	0.02167	-0.00283	0.16228	-0.02447	-0.00767	0.02899	0.02427	0.01823	-0.01884
87	-0.03247	0.02491	-0.00272	-0.01161	0.00078	-0.01355	-0.01098	-0.00343	0.02953	-0.00943
88	0.00844	-0.13229	0.06287	-0.02972	-0.07287	-0.03568	-0.11785	-0.04818	0.11035	-0.01850
89	0.00862	0.07720	-0.03432	0.09555	0.02552	0.00051	0.05584	-0.00232	-0.05179	0.00938
90	-0.03212	0.05451	-0.0[illegible]380	0.09716	0.04263	-0.01090	0.02497	0.00279	0.03015	-0.01036
91	0.03182	-0.06168	0.0[illegible]64	-0.04860	0.00480	-0.04802	-0.02692	-0.03601	0.10113	0.02044
92	-0.03399	0.07078	0.025[illegible]7	-0.09280	0.00387	0.01703	-0.00505	0.01669	-0.03047	0.02965
93	-0.05381	0.16676	-0.06741	-0.03639	0.06003	0.04353	0.10115	0.00991	-0.17591	0.00590
94	0.05297	0.03266	-0.03522	-0.00661	-0.02371	0.01463	0.03819	-0.03883	0.00793	-0.04977
95	-0.00579	0.05668	-0.01806	-0.02208	-0.00804	0.02554	-0.00364	0.00886	-0.03412	0.08790
96	-0.02274	0.03026	0.01104	-0.03580	-0.00557	-0.02242	-0.04633	0.00935	-0.09268	0.00817
97	-0.01932	0.12885	-0.03824	-0.03068	0.04472	0.09232	0.06989	0.04837	-0.22346	0.03630
98	0.02213	0.06799	0.07800	-0.02472	-0.00677	-0.02010	0.03888	-0.00278	-0.05846	0.08135
99	0.03075	-0.14327	0.11000	-0.01081	0.04857	-0.02102	-0.10709	0.04303	-0.08524	0.03018
100	-0.01146	0.07764	-0.03419	0.18335	0.02711	0.01598	0.07131	0.03489	0.00533	-0.01848
101	0.02485	0.04523	-0.01968	0.01514	0.04577	0.03601	0.00228	-0.00681	-0.05992	0.00265
102	-0.01620	0.03323	-0.04411	-0.01533	0.08341	-0.00003	0.08799	-0.00727	-0.00417	0.03916
103	0.02755	0.01752	-0.01146	0.00622	-0.00916	-0.03674	0.02405	0.00189	-0.00261	0.01956
104	0.00890	-0.02209	-0.00940	0.08502	-0.01023	0.05384	0.03368	-0.01168	-0.03621	0.00637
105	0.02712	0.06469	0.01030	-0.07346	0.01719	-0.00060	0.05322	0.00393	0.02154	0.03712
106	-0.14894	0.24012	-0.13349	0.00151	0.11700	0.03117	0.00731	0.00224	0.23392	-0.10939
107	-0.01066	0.01742	-0.03431	-0.00424	0.00732	0.00362	0.00959	-0.00174	0.01278	-0.03360
108	-0.05128	-0.03754	-0.13252	0.01341	-0.00529	-0.32570	0.02095	-0.03609	0.03293	-0.01703
109	-0.01481	0.06527	0.03110	0.00816	0.01372	0.00959	0.02810	0.01029	-0.05827	0.08583
110	0.00159	0.16270	-0.05415	0.10045	-0.02288	0.02386	0.03386	0.01532	0.00265	0.02799
111	0.04276	0.00835	-0.06486	0.00354	-0.14295	0.05679	0.02063	0.02507	-0.22543	-0.17911
112	0.00578	0.06342	-0.01323	-0.05646	0.05544	-0.03818	-0.08703	0.03389	-0.14916	0.07261
113	0.00100	-0.00216	-0.01865	-0.02400	0.00425	0.04173	0.11528	-0.04627	-0.03745	-0.00323
114	-0.20171	0.07617	-0.06458	-0.00021	-0.03752	0.02992	0.14470	-0.01455	0.09920	-0.03606
115	-0.03068	-0.01541	-0.02919	0.00649	0.05113	0.00548	0.02463	0.00599	0.00338	0.05703
116	-0.03317	0.17294	-0.10364	0.03291	-0.00618	0.07704	-0.15564	-0.00564	-0.12519	-0.01881
117	-0.02097	-0.02901	0.06793	-0.02183	-0.02634	0.06730	0.11259	-0.01706	-0.07852	0.01489
118	-0.03189	0.02366	-0.05071	-0.00099	0.03773	0.14862	-0.02314	-0.02187	-0.03800	-0.02797
119	0.04481	-0.27454	0.03100	-0.00899	-0.05585	-0.04488	-0.11706	-0.01623	0.16438	-0.09898
120	0.06764	-0.20671	0.14946	-0.00341	-0.07970	0.04581	-0.26796	-0.01132	-0.09006	-0.01846
121	-0.07576	0.22824	-0.04719	0.07597	0.00989	0.03612	-0.03792	0.00100	0.11299	0.00937
122	0.06101	-0.06351	0.00253	0.02466	-0.03502	-0.00602	-0.04501	-0.01555	0.01820	-0.04116
123	-0.01682	0.00731	0.00295	0.01965	-0.00230	0.03327	0.02365	-0.02964	0.07878	0.04265
124	0.02233	-0.09387	0.04928	-0.05027	-0.06416	-0.03767	-0.06390	-0.00612	0.00103	0.02262
125	0.00694	-0.00147	0.00506	0.06478	-0.20599	0.10495	-0.14981	0.00894	-0.04347	-0.08389
126	0.00776	-0.04427	0.01144	0.07989	-0.01336	-0.04531	0.01085	0.01080	0.08566	-0.01772
127	0.09132	-0.13990	-0.04347	0.01532	0.06737	-0.01144	-0.01924	-0.04044	0.06511	0.07959
128	0.02057	0.02541	0.00549	-0.03527	0.00602	-0.03857	-0.00784	0.05103	0.04984	-0.06426
129	0.04041	-0.08239	0.09742	-0.03475	-0.06642	-0.09435	0.04022	-0.01018	-0.03767	-0.04532
130	0.02045	0.05461	-0.05765	0.15188	-0.07445	0.00605	0.06313	0.00750	0.00282	-0.04078
131	-0.03075	0.07865	-0.07252	0.01951	-0.01737	0.02558	0.04171	0.05117	-0.02775	-0.00134
132	-0.03105	0.06830	0.01946	0.00519	0.05706	-0.00482	-0.08555	-0.04373	0.07567	0.02401

	51	52	53	54	55	56	57	58	59	60
51	0.32828									
52	-0.00920	0.47692								
53	-0.00858	-0.01118	0.30696							
54	0.01068	0.00688	-0.01067	0.21166						
55	0.00005	0.01519	-0.02310	0.01078	0.55030					
56	-0.01325	-0.01831	-0.00438	-0.00576	-0.01345	0.28497				
57	0.00135	-0.00691	-0.01655	0.00065	0.01983	0.03919	0.25297			
58	0.01017	0.00358	-0.00809	0.01382	0.01152	-0.03610	0.00237	0.65139		
59	-0.00040	-0.04601	0.00095	0.01121	-0.00701	0.02736	-0.00016	-0.06484	0.39895	
60	-0.01974	-0.02659	0.00930	-0.01685	-0.00234	0.00445	-0.02682	0.02717	0.00137	0.36126
61	-0.01139	-0.20772	0.20055	-0.02721	-0.03603	0.11386	-0.10677	-0.21632	0.18209	0.16372
62	0.00351	0.07885	0.00570	-0.12116	-0.06021	-0.04831	0.00593	-0.06303	-0.03516	-0.05354
63	-0.13849	-0.06099	-0.01996	0.00641	0.02138	0.05559	0.03166	0.07979	0.04806	0.23504
64	0.05865	0.02311	-0.22450	0.00289	-0.08399	0.02610	0.12151	-0.08313	0.02564	-0.07914
65	0.06588	0.02351	0.08791	-0.02913	-0.02145	-0.00491	-0.03563	0.02196	-0.05091	0.02091

66	-0.09843	-0.02939	0.19806	-0.01169	-0.00199	0.02991	-0.07251	-0.09716	0.04817	0.01379
67	0.06810	-0.04748	-0.03484	0.05807	0.04406	0.10139	0.16230	0.06484	0.10956	0.16981
68	-0.02273	-0.07734	0.02674	0.01245	0.05986	0.01325	0.04951	-0.01154	-0.03049	0.05545
69	0.03434	0.08145	-0.08445	-0.00087	0.02702	-0.03279	0.03830	0.15928	-0.07758	0.00186
70	0.01318	-0.10060	0.02768	0.01071	0.01783	0.04414	-0.01859	-0.00532	0.16885	0.17917
71	-0.00155	0.10512	0.03555	0.01322	-0.04808	-0.08908	-0.01368	0.07711	-0.05333	-0.07175
72	-0.00949	0.11498	-0.02445	-0.06465	-0.00096	-0.03251	0.00898	0.06146	-0.09636	0.13161
73	0.00525	0.00671	-0.00357	0.01296	-0.06379	-0.00279	-0.05927	-0.07203	-0.01504	-0.02157
74	0.01872	-0.01794	-0.16293	0.00339	-0.05187	0.00904	0.03291	0.04636	0.03447	-0.03018
75	0.03512	-0.05137	0.01392	-0.04638	0.01739	-0.02315	-0.03438	-0.03150	-0.02905	-0.04774
76	-0.01353	0.01037	-0.02219	0.05735	0.02656	0.01030	-0.04274	0.16725	0.03842	0.05502
77	0.04047	0.03426	0.06432	0.00376	-0.04399	-0.04958	-0.07826	0.08899	-0.03920	-0.02184
78	0.01334	0.07378	-0.03637	-0.01277	0.02888	0.00515	0.04074	-0.01909	0.00444	-0.15341
79	-0.01648	-0.03410	0.05963	0.01671	0.01487	-0.00152	-0.00501	0.12999	-0.03368	0.12604
80	-0.01891	-0.08224	0.00986	0.01534	-0.08203	0.04022	0.01174	-0.00411	0.06549	0.10615
81	-0.00282	0.06696	0.11946	0.00448	-0.03069	-0.02595	-0.07658	0.10757	-0.00223	-0.02769
82	-0.01733	0.07832	-0.02750	0.02856	0.04530	-0.03892	0.00185	0.00723	-0.04657	-0.14357
83	0.00207	0.03751	-0.01054	0.01232	0.00914	-0.01244	0.00588	0.01075	0.00722	-0.06455
84	-0.01151	0.07733	0.01570	0.00176	-0.01636	-0.05841	0.00599	0.08975	-0.07397	0.09394
85	-0.05646	0.03359	0.01223	-0.00749	-0.11725	-0.05102	0.01788	-0.01010	0.03509	0.12860
86	0.02890	0.00288	-0.01163	-0.02728	-0.04798	-0.00862	-0.01315	-0.06591	-0.01741	-0.02969
87	-0.04104	0.01595	-0.00629	0.03054	-0.10401	-0.00690	-0.01969	-0.01162	-0.01646	0.01928
88	0.00063	-0.07375	-0.06481	-0.00446	0.04423	0.05317	0.03001	-0.00819	0.06774	0.13451
89	0.01642	-0.00763	-0.02177	-0.00613	-0.01575	-0.01344	0.02343	-0.00744	-0.03636	-0.05585
90	0.02261	0.03579	0.03074	-0.01314	-0.01714	-0.00300	-0.00081	0.03534	-0.03990	-0.02349
91	0.01076	-0.03224	-0.01350	-0.01126	0.05600	0.03222	-0.03590	-0.00588	0.04199	-0.00626
92	-0.00654	0.00876	-0.06066	-0.03427	-0.00541	-0.00564	-0.01332	-0.01019	-0.02486	-0.03449
93	0.00059	0.11848	0.05103	0.01701	0.00191	-0.08127	0.00215	0.07354	-0.07108	-0.13560
94	0.00915	0.00324	0.00102	0.00060	-0.01002	0.02830	0.06659	-0.60625	0.05816	-0.03943
95	0.01053	0.01503	0.03991	-0.04366	0.07927	-0.00015	0.00262	-0.00683	-0.02020	-0.02590
96	-0.00377	0.02030	0.01473	-0.01358	0.01534	0.01788	-0.00826	-0.04189	-0.00697	-0.00307
97	-0.01497	0.00875	-0.06368	0.05942	0.01135	-0.01342	0.05124	-0.06245	0.03942	-0.17727
98	0.03541	-0.18164	-0.00098	0.01174	0.00989	0.01055	-0.03667	0.02016	-0.03633	0.00832
99	0.02037	0.04584	0.03588	-0.01895	0.02192	0.03168	-0.01595	0.13848	0.10604	0.01290
100	0.00385	0.03024	-0.03341	-0.00455	-0.05189	-0.03315	-0.02803	0.06803	-0.02703	-0.06251
101	0.01100	0.02860	0.00673	-0.02236	0.08960	-0.02398	0.02711	-0.01749	-0.03256	-0.03235
102	0.01953	0.03853	0.05966	-0.03856	-0.07793	-0.04544	-0.06045	0.02278	-0.02674	-0.07961
103	0.00827	0.00133	-0.04871	0.01155	0.13256	0.00258	-0.01559	-0.05680	-0.05248	-0.02622
104	0.04524	0.02506	-0.02227	-0.01730	0.49441	-0.02910	-0.01972	0.01979	0.00338	0.05390
105	0.01538	0.08025	-0.07382	0.02181	-0.01398	-0.00515	0.01060	0.02983	0.00469	-0.09345
106	0.32679	0.07108	-0.10899	0.11420	0.05244	0.01227	0.07618	0.06250	0.09411	-0.17029
107	-0.00222	0.03017	-0.00602	0.00706	-0.01133	-0.00757	0.02291	0.00792	0.00602	-0.02484
108	0.03722	0.37156	0.00635	-0.12744	-0.03398	-0.24673	-0.13342	-0.04743	-0.16565	-0.01449
109	-0.04771	-0.01273	-0.01637	0.01549	-0.04088	-0.00035	-0.07959	0.02587	-0.00965	-0.06619
110	-0.02012	0.02512	0.02722	-0.01961	0.01372	0.00678	0.01702	0.03594	-0.03555	0.01118
111	-0.05291	-0.00665	0.06750	0.10860	-0.06026	-0.04931	0.09146	0.09123	0.00426	0.21632
112	0.04886	-0.04845	-0.00315	-0.03358	0.02938	0.04560	0.06994	-0.05802	-0.01204	-0.07658
113	0.03675	-0.00246	-0.00231	0.03062	-0.02364	-0.09760	0.04018	-0.14294	-0.05348	0.00186
114	-0.02997	0.08318	-0.10210	-0.00360	-0.03347	-0.02664	0.02651	0.22332	-0.39836	0.02652
115	-0.03098	0.00837	0.03208	0.08171	-0.08634	-0.05141	-0.07599	0.02726	0.03562	-0.05071
116	-0.07676	0.03584	-0.05375	-0.03244	0.13677	-0.02260	0.09570	-0.01737	-0.01125	0.07369
117	-0.02066	0.00226	0.10770	0.00708	-0.01460	-0.03566	-0.10938	0.09607	-0.10504	-0.06293
118	0.00154	-0.01580	-0.00317	0.07044	0.02903	-0.02006	-0.05499	-0.01111	0.02322	-0.05476
119	0.00234	-0.01744	0.01454	0.01874	-0.01498	-0.02692	0.02380	0.10564	0.03571	0.26662
120	-0.11985	-0.06876	0.04696	-0.00098	0.06129	0.19300	0.03899	-0.09543	0.11976	0.09625
121	0.03483	0.03884	-0.11414	-0.02705	0.06015	0.00896	0.08770	0.01249	-0.09791	-0.13842
122	-0.01019	0.07558	0.03769	0.01670	0.00046	-0.01517	-0.05860	0.02252	-0.05314	0.02751
123	0.06010	-0.07030	-0.00432	0.07754	0.07730	-0.03786	-0.03813	0.03919	-0.01991	0.02561
124	0.01053	-0.09890	-0.04885	-0.00763	-0.00652	0.06869	0.01799	-0.10072	0.04745	-0.02248
125	-0.25072	0.08219	0.03266	0.02185	-0.02834	-0.01644	0.02664	0.07713	-0.07607	0.12789
126	0.03929	0.00204	0.01807	0.01939	-0.05291	0.03571	0.01737	0.06335	0.00617	-0.01250
127	0.02233	0.07409	-0.16072	0.03082	0.04699	-0.06207	0.07858	0.02257	0.00760	-0.04319
128	0.05131	0.03722	0.03158	0.04258	-0.09921	-0.01565	-0.02368	0.18099	0.00461	-0.08115
129	-0.18230	0.02004	-0.03573	-0.02912	-0.18968	0.03377	0.00015	-0.10112	-0.01700	-0.01428
130	-0.05182	0.04390	-0.06145	0.04725	-0.05945	-0.04433	0.02457	0.06345	-0.04769	0.12062
131	-0.13840	-0.00963	0.04524	-0.02269	0.05417	-0.02332	-0.05124	-0.01459	-0.08548	0.08936

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132	0.04008	-0.10106	-0.01616	-0.07161	-0.01744	0.05578	0.00567	-0.09890	-0.00541	-0.01058

	61	62	63	64	65	66	67	68	69	70
61	0.58168									
62	-0.00593	0.33840								
63	0.02668	0.00787	0.49900							
64	-0.05289	0.07242	-0.02265	0.46881						
65	-0.00120	0.12159	0.00241	0.02795	0.21758					
66	0.10776	-0.01258	-0.03195	-0.10898	0.01846	0.59359				
67	0.02449	-0.13790	0.12304	0.01038	0.03174	0.05366	0.41822			
68	-0.03049	-0.10114	0.07450	-0.16941	-0.07108	0.01121	0.07584	0.40615		
69	0.00221	0.02886	-0.01566	0.00264	-0.04002	-0.11321	0.09255	-0.05143	0.35795	
70	0.27938	0.00539	0.23391	-0.01544	-0.01917	0.03130	0.17130	-0.02152	0.15532	0.85317
71	0.08370	0.06327	-0.24080	-0.04753	0.08052	-0.08846	-0.13995	-0.02704	0.01358	-0.02594
72	-0.04787	-0.02669	0.06401	-0.01580	-0.02684	-0.05258	0.05071	-0.06374	0.13483	-0.00666
73	0.04778	0.01357	-0.00820	0.02854	0.02537	0.04635	-0.03164	-0.04225	-0.06307	0.01008
74	-0.06031	0.11667	0.01268	0.09367	0.03684	-0.28486	-0.02788	-0.04735	-0.01755	0.02531
75	0.01801	0.01624	-0.02895	-0.02632	0.02252	0.03099	-0.05204	-0.04706	-0.01384	-0.05298
76	-0.09308	-0.02409	0.07895	-0.06937	0.00878	-0.05459	0.03988	0.04553	0.07553	0.01302
77	0.10747	-0.00341	-0.24606	-0.01451	0.03657	-0.02904	-0.09741	-0.11262	0.01331	0.00681
78	-0.00936	0.04411	-0.13419	0.07583	0.08627	-0.05472	-0.05827	0.02121	0.02021	-0.03585
79	0.09357	-0.04148	0.18333	0.00743	-0.01247	-0.00198	0.15802	0.04026	0.17354	0.06693
80	0.08980	-0.06012	0.10364	0.05441	0.00217	0.03007	0.05779	-0.00758	-0.03049	0.02476
81	-0.07610	-0.00928	-0.14839	-0.12043	0.04185	0.01447	-0.08754	-0.01597	0.02371	-0.02984
82	-0.18509	0.00079	-0.10061	-0.00539	0.06192	-0.03056	-0.12077	0.07921	-0.07263	-0.38573
83	-0.09124	-0.01829	-0.10768	-0.08388	-0.01357	-0.01293	-0.07212	-0.00184	-0.05231	-0.14928
84	-0.11357	-0.02308	0.00987	-0.07008	0.02410	-0.04992	-0.10892	-0.03541	-0.08726	-0.33192
85	0.17984	0.02412	0.06216	-0.01623	0.04174	0.04898	0.07110	0.01069	0.11756	0.17505
86	-0.02253	-0.03597	-0.00088	-0.02992	-0.03894	0.02573	-0.04312	-0.05380	-0.05356	-0.19670
87	0.07683	0.02547	0.01512	0.00137	-0.05930	-0.02522	-0.02341	-0.03646	-0.06634	-0.19811
88	0.04762	-0.00440	0.26232	0.11530	-0.02019	-0.02686	0.16414	0.01693	0.18054	0.38384
89	-0.11688	0.03949	-0.04533	0.03132	0.05951	0.00711	-0.09982	0.00076	-0.08323	-0.25631
90	-0.04651	0.02913	-0.04486	-0.04269	0.03999	-0.02875	-0.07219	-0.02275	0.04666	-0.15058
91	0.04562	0.01704	0.06301	0.03085	-0.02501	-0.01384	0.04771	-0.05576	0.09429	0.20190
92	-0.03951	0.01414	-0.04459	0.03411	0.01183	-0.01117	0.00237	0.04625	0.03565	-0.06532
93	-0.02390	0.03862	-0.23995	-0.02666	0.07618	-0.09611	-0.12196	0.04507	-0.05197	-0.29424
94	0.15944	0.04257	0.03805	0.07409	-0.04177	0.12789	-0.01967	0.10213	-0.18482	-0.03434
95	-0.06564	-0.08009	-0.03757	-0.10812	-0.00632	0.05913	0.09509	0.16211	0.01260	-0.04907
96	0.12820	0.02200	0.02027	-0.00438	-0.04649	0.08149	-0.01190	-0.04530	-0.06886	-0.17403
97	-0.03915	0.03626	-0.11264	0.05629	0.05023	0.01709	-0.06789	0.02915	-0.14017	-0.09690
98	0.07610	0.01268	-0.01540	0.00976	0.02842	-0.02790	-0.09272	-0.02172	-0.13168	-0.08125
99	0.13145	-0.02314	0.13020	-0.14335	-0.11501	0.29256	0.09290	0.18134	-0.10438	0.10230
100	-0.13534	-0.04470	-0.08739	-0.09153	-0.02568	0.01900	-0.12351	0.00718	-0.08547	-0.39493
101	-0.09565	-0.03923	-0.04468	-0.03053	0.00573	0.01057	-0.00901	0.04191	-0.02685	-0.03953
102	0.09508	0.03041	-0.27423	-0.01483	0.05074	-0.00980	-0.11253	-0.06237	0.00453	-0.08277
103	0.00547	-0.13987	-0.00988	-0.05063	-0.00408	0.06054	-0.02163	0.04477	-0.00941	-0.04240
104	-0.03539	-0.04787	-0.00363	-0.05043	-0.03629	0.08458	0.05671	-0.00816	0.01154	-0.00073
105	-0.18550	0.01903	-0.15636	0.03947	0.06814	-0.06328	-0.07576	-0.01114	-0.06468	-0.15269
106	-0.13713	0.02814	-0.19672	0.01502	-0.04231	-0.21355	0.02405	0.01947	0.11276	-0.11602
107	-0.03534	-0.00312	-0.01767	0.01490	0.00805	0.00625	-0.01429	-0.01315	0.01513	-0.03751
108	-0.13808	0.17881	-0.10117	-0.00038	0.09045	-0.02937	-0.12166	-0.10320	0.05144	-0.05199
109	-0.02318	0.05163	0.03503	-0.01986	-0.00472	-0.06585	-0.06005	0.02864	-0.01648	-0.02573
110	-0.14182	0.03375	-0.02886	-0.02546	0.05104	0.01517	-0.11865	-0.03482	-0.10842	-0.38931
111	0.02037	-0.07229	0.16518	-0.12344	0.02750	0.04627	0.09917	0.08294	-0.00604	-0.00049
112	0.00844	0.04951	-0.03218	0.03389	0.04780	0.01744	-0.05722	0.01497	-0.00827	-0.03294
113	-0.03573	0.01405	-0.05305	0.02485	0.03416	0.07059	-0.02638	-0.01325	-0.05422	0.00055
114	-0.27156	0.00216	0.00718	-0.00290	-0.03678	-0.01976	-0.03703	0.06287	0.07937	-0.12669
115	-0.03329	0.01762	-0.00524	-0.06301	0.01239	0.18431	-0.00227	0.05376	0.05433	-0.01719
116	-0.05873	0.01082	0.04736	-0.00670	-0.01072	-0.15483	-0.00802	0.11730	-0.02453	-0.12705
117	-0.08860	-0.04543	-0.00190	-0.03048	0.01542	0.14690	-0.06317	-0.01711	-0.01064	-0.25359
118	-0.03320	-0.01455	-0.01889	-0.02846	0.00383	0.01340	0.02211	0.00071	0.02429	0.02429
119	0.08934	-0.00650	0.28644	0.01482	-0.05084	-0.08392	0.23766	-0.01998	0.20953	0.62363
120	0.15547	-0.17926	0.31368	-0.16524	-0.11635	0.29907	0.28654	0.28149	-0.10660	0.17571
121	-0.36192	0.00424	-0.04870	0.07257	-0.13048	-0.07886	0.08845	0.13336	0.04042	-0.22198
122	0.00172	-0.07956	0.06548	-0.04708	-0.06832	0.08793	-0.03774	-0.04955	-0.02235	-0.06979

K (1)

123	-0.05952	-0.19205	0.01746	-0.03936	-0.04402	0.09015	0.00849	0.07893	0.00686	0.01810
124	0.10456	0.02820	0.06838	0.17425	-0.02739	-0.02501	0.06385	-0.01835	0.06387	0.27417
125	-0.06012	-0.20364	0.09490	-0.12938	0.01322	-0.09286	0.05973	0.24670	-0.02579	-0.05230
126	-0.03434	-0.01699	0.00115	0.00688	0.02430	-0.01186	-0.01382	-0.01919	-0.00659	-0.03067
127	-0.23093	0.00055	-0.00019	0.29125	-0.00795	-0.07293	0.09093	-0.09754	-0.01278	0.00174
128	-0.05176	-0.01311	-0.18855	-0.01649	0.03907	-0.07091	-0.09111	0.01038	0.01029	-0.07093
129	0.10369	0.21610	0.03312	0.22360	0.04478	-0.16113	-0.14062	-0.24301	-0.06541	0.06605
130	-0.07526	-0.07674	0.04989	-0.04920	-0.01346	-0.04559	-0.07466	-0.12954	-0.12697	-0.26137
131	-0.10206	-0.06848	-0.05080	-0.14439	0.02900	0.11319	-0.05504	-0.05691	-0.13135	-0.04937
132	0.13224	0.02067	-0.10387	0.05[illegible]07	-0.07117	0.05187	-0.10625	0.00441	0.04188	0.03942

	71	72	73	74	75	76	77	78	79	80
71	0.81070									
72	0.01749	0.73935								
73	0.01063	-0.01037	0.32395							
74	0.02096	0.00562	0.00398	0.44547						
75	-0.01798	-0.06722	0.07560	0.00153	0.40544					
76	-0.04333	0.01064	-0.02199	0.11527	-0.00597	0.44908				
77	0.11995	0.00849	0.03090	-0.01331	0.09167	0.00588	0.48336			
78	0.09511	-0.06935	0.01818	0.00579	-0.06610	-0.03485	-0.01289	0.75711		
79	0.01997	0.04268	-0.02560	-0.01986	-0.08398	0.09185	0.05852	-0.03921	0.70729	
80	-0.08471	-0.00547	0.01324	0.00525	-0.05127	-0.03322	0.02125	-0.00931	0.00891	0.22172
81	0.03454	0.00760	-0.00082	-0.08641	0.00827	0.12155	0.08665	-0.00698	-0.03556	0.00347
82	0.06040	-0.04900	0.04031	-0.06688	0.02896	0.07071	-0.08978	0.15238	-0.17611	-0.03616
83	-0.00083	0.01484	-0.00436	0.01428	0.08058	0.14107	0.04570	-0.02837	-0.19487	-0.07995
84	0.08482	0.14898	-0.06728	-0.06707	-0.03521	0.15509	0.07678	0.07249	0.25192	0.02111
85	0.15984	0.03458	-0.01719	-0.07814	-0.04856	0.01383	0.12926	-0.03386	0.17002	-0.01247
86	-0.01551	-0.00215	0.14456	0.01701	0.35597	-0.06995	0.02806	-0.06546	-0.06486	0.08583
87	-0.01917	0.01650	-0.01151	0.03208	0.07193	-0.05491	0.02867	-0.10659	-0.13426	0.04332
88	-0.26032	0.12901	-0.03627	0.09277	-0.11314	0.12707	-0.16815	-0.03583	0.25143	0.09101
89	-0.056[illegible]	-0.07182	0.01004	0.08908	0.03422	0.12530	-0.04970	0.13231	-0.03460	-0.04419
90	-0.05276	0.03295	-0.02029	0.02339	0.12943	0.10374	0.08028	-0.05828	-0.09402	-0.01794
91	-0.04963	0.05498	-0.02317	0.06627	-0.05490	0.09270	-0.01794	-0.02544	0.05098	0.01804
92	-0.08229	-0.15622	0.04595	-0.04456	0.04177	-0.06983	-0.06198	0.14415	-0.20052	-0.00604
93	0.64055	0.05486	0.02829	-0.02113	-0.10302	0.00849	0.15734	0.47193	0.07718	-0.11066
94	-0.03321	-0.06518	0.12968	-0.12644	0.00506	-0.13336	-0.06868	0.00810	-0.07746	0.02353
95	-0.05812	0.00607	-0.02843	0.01690	-0.00431	0.02603	-0.04808	0.02574	-0.05087	0.00737
96	0.00286	0.07040	-0.01233	-0.05135	0.06626	-0.21895	-0.08669	-0.02358	-0.18998	0.01414
97	-0.00130	-0.67833	0.07214	0.00307	0.05773	-0.13161	-0.04702	0.23439	-0.19387	-0.01920
98	-0.00992	-0.26099	-0.04605	0.06940	0.12365	0.07561	0.00299	-0.10283	0.00536	-0.01206
99	-0.07550	-0.04388	-0.01530	-0.06002	-0.02569	0.00776	-0.03994	0.00460	0.02319	0.03719
100	-0.00487	0.02235	0.04180	-0.00749	0.20677	0.10837	-0.00592	-0.12718	-0.20932	-0.01615
101	-0.00951	-0.03447	0.03014	-0.01725	0.02487	-0.07235	0.00098	0.03110	-0.09601	-0.03604
102	0.40985	-0.05904	0.10677	0.01615	0.25295	-0.20465	0.36605	-0.10195	-0.22392	-0.05246
103	-0.04638	0.01389	-0.00974	-0.35006	0.05982	-0.12617	0.00707	0.06170	-0.01855	0.01461
104	0.00435	0.01852	-0.01054	-0.03068	-0.01837	0.02397	-0.00170	-0.03613	0.03501	-0.01444
105	0.00339	0.05962	0.03645	0.09040	-0.03827	0.10053	-0.07697	0.06516	-0.31173	-0.03708
106	0.02279	-0.04439	-0.07066	0.05071	0.04086	0.14456	0.11848	-0.04827	-0.02083	-0.04737
107	-0.02660	0.02755	-0.01775	-0.03648	0.03743	0.00171	-0.01298	-0.00469	-0.04323	-0.01980
108	0.06879	0.09806	0.02169	0.01036	0.03146	-0.02331	0.03624	-0.00105	-0.03069	-0.03311
109	0.00941	-0.12122	0.05573	0.01621	0.02692	0.01203	-0.04535	0.05263	-0.05111	-0.00887
110	-0.14028	0.00442	-0.08551	0.00418	0.05008	0.14105	-0.01462	0.06150	-0.00728	-0.01646
111	0.19301	0.04987	-0.02967	-0.02447	-0.02389	0.09482	-0.11562	-0.12118	0.15917	0.03522
112	-0.01823	0.00652	-0.00381	-0.00618	0.04186	-0.11364	-0.12547	0.11791	-0.22954	-0.07235
113	-0.00453	-0.10521	0.03077	0.01959	0.05615	-0.04543	-0.05867	0.12144	-0.16764	-0.01803
114	0.02773	0.03977	0.04527	-0.02432	0.00926	0.00346	0.04920	0.04770	0.00069	-0.04612
115	-0.01992	-0.06280	-0.02188	-0.04158	-0.04198	0.03486	-0.00018	-0.08503	0.05837	0.05013
116	-0.02646	0.01785	-0.04544	-0.00943	-0.02880	-0.04064	-0.08730	0.03016	-0.01141	-0.02458
117	-0.06981	-0.02403	0.03981	-0.20114	0.00106	-0.03884	-0.09609	-0.03142	-0.00136	-0.01904
118	-0.03958	-0.09833	0.02654	0.01180	0.02980	0.00415	-0.01673	0.04408	0.00105	0.01458
119	-0.15206	0.24663	-0.08625	0.06553	-0.18731	0.12558	0.02789	-0.26739	0.44262	0.06061
120	-0.21121	-0.04010	-0.04030	-0.10300	-0.05155	-0.03963	-0.20054	-0.05616	0.02415	0.09954
121	-0.21508	-0.03585	-0.03796	0.05931	0.01150	0.09213	-0.12487	0.06947	-0.11248	-0.02525
122	-0.08626	0.01524	-0.02091	-0.19289	-0.01676	-0.06146	0.01964	-0.08418	0.09330	0.04226
123	-0.04034	0.00779	-0.02321	-0.06464	0.01305	0.05573	-0.01820	-0.04205	0.01378	0.05436

124	-0.06496	-0.12702	-0.00290	0.07449	-0.07604	-0.19522	-0.14216	-0.00168	-0.00958	0.09273
125	-0.00265	-0.00878	0.00268	-0.02716	-0.04282	0.06425	-0.00693	-0.00597	0.05444	0.05730
126	-0.10649	-0.00202	0.01411	0.05528	0.23115	0.09154	0.04078	-0.13154	-0.16293	-0.01263
127	-0.13104	0.04278	-0.00671	0.05160	-0.02171	-0.02912	-0.05563	-0.00563	-0.17085	0.05164
128	0.22596	0.02052	0.04108	0.16771	-0.02797	0.13786	0.20975	0.08981	0.01433	-0.00522
129	0.03623	0.01017	0.01481	0.10799	0.01914	-0.08239	0.00921	0.01308	-0.08663	-0.02534
130	0.04945	0.12639	-0.02160	0.07119	0.07131	0.07168	0.01321	-0.14136	0.07188	0.03773
131	-0.03935	-0.03699	0.00685	-0.09047	0.04006	-0.15573	0.01301	-0.04858	-0.02994	0.01054
132	0.08654	-0.06771	-0.00984	0.07241	0.03311	-0.04122	0.08906	-0.01140	-0.04252	0.01493

	81	82	83	84	85	86	87	88	89	90
81	0.41495									
82	0.02097	0.77299								
83	0.11709	0.03019	0.44816							
84	0.13411	-0.00116	-0.02086	0.72064						
85	0.01865	-0.04957	0.00646	-0.00937	0.45870					
86	-0.09860	0.02693	-0.00080	-0.04257	-0.02639	0.52397				
87	-0.09916	-0.00163	0.03511	0.00214	-0.02130	0.05997	0.61433			
88	-0.30660	-0.00839	-0.08092	-0.09500	0.01683	-0.03504	-0.04515	0.60035		
89	0.02685	-0.00667	0.05913	0.09799	-0.04459	0.04816	-0.02814	-0.03794	0.61447	
90	0.08900	0.00605	0.11620	0.05343	-0.02639	0.03197	0.04355	-0.00360	0.03682	0.41828
91	-0.03180	-0.03458	0.05115	-0.04036	-0.09227	-0.01867	-0.05241	0.16639	0.00419	0.00465
92	-0.01170	0.00639	-0.01428	-0.07184	-0.04260	-0.09009	0.03182	-0.01495	0.04086	0.03302
93	0.13939	0.21026	0.00940	0.26933	0.05849	-0.04860	-0.02235	-0.30525	0.13111	-0.09679
94	-0.03626	0.06816	-0.00623	-0.02861	0.01426	0.06001	-0.00560	-0.03405	-0.01666	-0.04982
95	-0.03916	0.15957	0.00717	-0.02667	-0.00480	-0.04096	-0.03710	-0.02043	-0.00946	-0.01883
96	-0.13217	0.01195	-0.03843	-0.01289	-0.04978	0.02665	0.59636	-0.05576	-0.04315	-0.01422
97	-0.05856	0.12220	0.00810	-0.12430	-0.06157	0.01110	-0.03532	-0.15886	0.08275	-0.03846
98	-0.06631	0.01019	-0.02706	-0.02990	-0.07316	0.05035	0.07452	-0.03983	0.19038	0.04691
99	0.00226	-0.00875	0.03333	-0.09667	-0.03496	-0.04370	-0.02257	0.02523	-0.06077	-0.03432
100	0.06650	0.34863	0.31080	-0.03510	-0.06487	0.47560	0.21764	-0.17058	0.09830	0.20442
101	-0.01722	0.02901	0.00938	-0.05664	-0.07784	0.00643	-0.04615	-0.07728	-0.00295	0.01905
102	0.11466	0.00050	0.04294	-0.07845	0.11476	0.10505	0.02600	-0.12268	-0.09166	0.05214
103	0.08119	0.07053	-0.00014	0.02048	-0.05294	-0.01746	-0.01121	-0.03855	-0.03406	-0.02453
104	-0.03249	0.03412	-0.01700	0.00836	-0.01036	0.00284	-0.08132	0.01962	-0.01647	-0.00573
105	0.12053	0.43405	0.14968	-0.11217	-0.14510	-0.12659	-0.08499	-0.09912	0.05893	0.13111
106	0.08766	-0.02264	0.07956	0.09432	-0.05958	-0.00214	0.05009	-0.09916	0.02693	0.02790
107	0.04701	0.02659	0.06819	-0.00231	-0.01947	-0.01200	-0.02859	0.01146	-0.00914	0.12001
108	0.03755	-0.03139	-0.02107	0.06384	-0.00305	0.05650	-0.02371	-0.04092	0.01568	0.01088
109	-0.02034	0.04851	-0.05377	-0.02165	-0.05002	0.00547	0.06014	-0.04758	-0.04351	0.01786
110	0.20603	-0.01320	0.12517	0.52298	-0.15766	-0.05838	0.01233	-0.19624	0.53925	0.24834
111	-0.02533	0.05066	-0.08308	0.19008	0.06566	-0.04767	-0.04887	0.07090	0.09523	-0.00798
112	-0.02580	-0.00708	0.03565	-0.07941	-0.03949	0.06433	-0.25008	-0.07857	0.03244	0.00404
113	-0.01892	-0.01513	0.05594	-0.06354	-0.02175	-0.00867	-0.00084	-0.03031	0.07299	0.01694
114	0.01756	-0.03518	0.01196	0.05829	-0.09968	0.00944	0.03214	-0.05885	0.00733	0.04384
115	-0.00400	0.05501	0.00121	-0.01205	0.04370	-0.03245	0.02535	-0.02324	0.03684	0.00020
116	-0.02353	0.24453	-0.05813	0.10397	0.00626	0.01854	-0.00912	0.00566	-0.12513	0.03493
117	0.17822	0.23559	0.01682	0.10247	-0.02933	0.01292	-0.01073	-0.12816	-0.06566	-0.01818
118	0.02426	0.01477	-0.02271	-0.02097	-0.03475	-0.04857	-0.03754	-0.02504	-0.01533	-0.04975
119	-0.04338	-0.54277	-0.13253	-0.02844	0.19403	-0.16798	-0.15381	0.37777	-0.16259	-0.12094
120	-0.09031	-0.02634	-0.04031	-0.20880	0.04769	-0.03905	0.00503	0.12837	-0.08003	-0.06085
121	-0.01591	0.06667	0.04875	0.05007	-0.39612	0.00945	0.05756	-0.00442	0.14666	0.07023
122	0.06024	-0.03371	-0.02269	0.20457	0.01662	-0.02024	0.10901	-0.02099	-0.08678	0.05990
123	-0.04067	0.06205	0.00534	0.02214	-0.14880	0.01283	-0.04356	0.04435	-0.01525	-0.00022
124	-0.28784	-0.04135	-0.43561	-0.25832	-0.00709	-0.00923	-0.01589	0.25315	-0.24402	-0.16107
125	0.03508	0.12317	-0.00623	0.07185	0.07224	0.00013	0.00558	0.02057	-0.00932	-0.03438
126	-0.02780	-0.02103	0.19038	-0.09173	-0.05221	0.23615	0.05921	-0.01898	0.11379	0.33639
127	-0.09680	0.09299	-0.00764	-0.15416	-0.03815	0.02923	-0.04845	0.11839	0.01442	-0.02396
128	0.11082	-0.00820	0.01479	0.11988	0.01664	-0.05747	-0.20860	-0.09656	0.12356	0.03587
129	-0.01089	-0.02712	0.00056	-0.07239	-0.01192	0.02456	0.05389	0.03286	0.00620	0.00020
130	0.04356	-0.11848	-0.02903	0.44482	0.00013	0.19262	0.30544	-0.13854	0.04729	0.06262
131	0.03054	-0.06508	-0.02083	0.07759	-0.15861	-0.00186	0.02458	-0.07683	-0.00837	-0.05056
132	-0.05338	-0.42408	-0.02777	-0.04417	0.06983	0.04323	0.07234	-0.01608	0.07431	0.05367

F (1)

	91	92	93	94	95	96	97	98	99	100
91	0.29375									
92	-0.11242	0.29106								
93	-0.11019	-0.05883	0.84748							
94	-0.04620	-0.03891	0.00153	0.82214						
95	0.02782	0.02742	-0.00103	-0.00077	0.82016					
96	-0.14790	0.08684	0.00131	0.00266	-0.00189	0.86594				
97	-0.05813	0.19516	0.00551	0.00417	-0.00310	-0.00068	0.78993			
98	-0.01179	-0.00230	-0.02528	-0.00118	-0.00088	0.00120	0.01698	0.72756		
99	-0.00250	0.00179	-0.00501	0.02579	0.00370	-0.00484	0.01450	-0.01045	0.80222	
100	-0.03449	-0.09953	-0.00368	0.00529	0.00089	0.02708	0.00301	0.00814	-0.00313	0.77372
101	-0.05949	0.05285	-0.00495	-0.00433	0.01079	0.00845	0.01179	-0.00968	-0.00206	-0.00831
102	-0.08128	0.08636	0.07908	-0.00200	-0.00455	0.00434	0.01523	0.01347	-0.00915	0.03930
103	0.02912	-0.02139	0.00303	0.01020	0.01270	-0.00540	-0.00147	-0.00159	-0.00425	0.00679
104	-0.00017	-0.03011	-0.00401	-0.00262	0.01523	0.03415	0.00136	-0.00410	-0.00169	-0.00180
105	0.06444	0.09228	0.05132	-0.00340	0.00943	-0.01090	0.00894	-0.00191	0.00179	0.05972
106	0.00976	0.00650	0.00741	0.00842	-0.00667	-0.01307	0.00291	-0.00099	-0.02014	0.02351
107	-0.00914	0.00056	0.00162	-0.00164	0.00030	-0.00334	-0.00286	0.05922	0.00164	0.01402
108	0.00352	-0.01625	0.02638	-0.00676	-0.00834	-0.00003	-0.03625	-0.01771	-0.02706	-0.00378
109	-0.02850	0.03623	0.00142	0.00188	0.01617	-0.00224	0.00455	0.01126	-0.00531	-0.00268
110	-0.02127	0.10467	0.04718	-0.00458	-0.00518	-0.00614	0.00059	0.05182	-0.00578	0.03366
111	-0.03192	-0.10164	0.04545	-0.00520	0.01333	-0.00724	-0.00172	0.06393	0.00202	0.00144
112	-0.05061	0.11401	-0.00700	0.00402	-0.00765	-0.01289	-0.00905	0.00421	0.00253	-0.01725
113	-0.01395	0.08310	-0.00401	0.04078	0.00127	0.00217	0.03909	-0.02566	-0.02545	-0.00734
114	-0.05701	0.07615	0.02043	-0.01605	0.01599	0.00617	-0.02378	-0.00246	0.01645	0.00429
115	0.07067	-0.03805	-0.00121	-0.00398	0.05026	-0.00278	0.00209	-0.01679	0.00259	0.00145
116	-0.07506	-0.08339	0.01941	0.00935	-0.00373	0.02493	-0.00246	0.00245	0.00262	0.01783
117	-0.10004	-0.01185	0.01205	-0.00343	0.00502	0.00111	-0.00291	0.01271	-0.00785	0.03816
118	-0.00688	-0.01164	-0.00596	0.00983	0.00879	-0.00410	-0.03076	0.07716	-0.00899	-0.00656
119	0.15438	-0.20425	-0.30385	-0.15438	-0.08274	-0.19328	-0.33254	-0.13101	-0.03872	-0.34751
120	0.01214	0.03759	-0.17065	0.16006	0.12710	0.03040	-0.00451	-0.05832	0.36562	-0.01799
121	0.03965	0.11580	-0.07571	-0.00469	0.11190	0.00990	0.07185	0.06080	-0.04609	0.03707
122	-0.01818	-0.03853	-0.02589	0.05979	-0.04372	0.07542	-0.04851	-0.02346	0.03680	0.02753
123	0.10820	-0.04114	-0.04902	-0.02950	0.21711	-0.05312	-0.04006	0.03112	0.02290	0.01742
124	0.02411	0.06376	-0.20645	0.07872	0.02915	0.02449	0.09970	0.03100	0.02410	-0.30944
125	-0.05600	0.00428	0.05890	-0.02092	0.04660	-0.00184	0.02518	-0.02540	-0.04254	0.01838
126	0.09451	0.04243	-0.20972	-0.07635	-0.01035	0.02465	0.00563	0.04824	-0.03713	0.24193
127	0.00269	0.00363	-0.06694	-0.04944	0.00045	-0.01426	0.01937	-0.02835	-0.06343	0.02819
128	0.01820	-0.00832	0.25046	-0.12022	-0.02019	-0.22796	-0.03407	0.07367	0.02643	-0.08419
129	0.01074	-0.00411	-0.02227	0.05104	-0.32767	0.00594	0.01806	0.04973	-0.06637	0.00513
130	-0.22825	-0.09470	0.07682	-0.01514	-0.08501	0.21397	-0.10871	0.02414	-0.11096	0.21023
131	-0.04002	-0.05806	-0.02968	-0.05161	0.04813	0.08379	0.05893	0.03948	-0.07252	-0.04994
132	0.12528	0.07832	-0.05739	0.01859	-0.08559	0.06382	0.02647	0.09766	-0.06383	-0.07525

	101	102	103	104	105	106	107	108	109	110
101	0.61692									
102	0.01176	0.69682								
103	0.03130	-0.00561	0.40185							
104	0.02118	-0.00710	0.00338	0.56031						
105	0.00681	0.01409	-0.00834	0.00064	0.62257					
106	-0.00680	0.03792	0.01488	-0.00178	-0.00497	0.63900				
107	0.00330	0.00262	-0.00170	-0.00231	-0.00309	0.00925	0.41028			
108	-0.01359	0.02227	0.00086	0.00518	-0.01294	0.01819	0.01223	0.62523		
109	0.04220	0.00052	0.00185	-0.01557	0.00277	0.00911	-0.00468	0.01116	0.41722	
110	-0.00232	-0.02546	-0.00197	0.00976	0.06132	0.04185	-0.00469	0.00783	0.00906	0.76909
111	-0.00330	-0.03166	0.00432	0.00484	-0.02069	-0.02727	-0.02976	-0.01647	-0.01246	0.04401
112	0.00942	0.06723	0.00293	0.00924	0.01792	-0.03026	0.00485	0.02310	0.01128	0.01934
113	-0.00482	0.01913	0.02594	-0.00672	0.00641	-0.00532	0.00892	0.03017	0.00265	0.00091
114	0.01257	0.02918	0.00184	0.00907	-0.00559	0.01867	0.00545	0.06619	-0.00334	0.01752
115	0.00319	-0.00017	0.00438	-0.00354	-0.00191	-0.00935	0.00293	-0.03112	0.06658	0.00785
116	0.04482	-0.04700	-0.00363	0.01311	0.00950	0.00786	-0.00016	0.00135	-0.01192	-0.00913
117	-0.00010	0.03536	0.02068	0.00784	-0.01751	-0.08649	0.01210	-0.00486	-0.00816	0.03132
118	0.00150	-0.01193	-0.01254	0.00802	0.02782	0.03284	-0.02613	-0.07570	-0.00007	-0.00167
119	-0.05760	-0.22961	-0.07699	0.01939	-0.30513	-0.00692	-0.06093	0.04003	-0.09362	-0.21563
120	0.00660	-0.13845	0.02079	0.04199	-0.05664	-0.26515	-0.03385	-0.24155	0.03279	-0.10223

K (1)

```
121     0.02873    -0.12643    -0.00194     0.03035     0.08455     0.18341     0.03025    -0.02661     0.04322     0.16826
122     0.01096    -0.07433     0.09984     0.02221    -0.08467    -0.00308     0.04185     0.05547     0.00729     0.05502
123    -0.01308    -0.03463     0.09613     0.07106     0.05203    -0.03298     0.06073     0.02367    -0.01398    -0.01481
124    -0.01392    -0.01415    -0.06519    -0.01121    -0.09412    -0.05451     0.02031    -0.02818     0.05289    -0.32112
125     0.01079    -0.04125     0.02472    -0.01126     0.00517    -0.12168     0.01023    -0.03217    -0.01958     0.00962
126     0.04118     0.08613    -0.01357     0.00048     0.10908     0.05772     0.08592    -0.01601     0.02180     0.12125
127     0.07767    -0.09121     0.01394     0.04266     0.14101    -0.04041    -0.00331     0.00972    -0.03872    -0.05651
128    -0.07811     0.19604    -0.09103    -0.04650     0.08305     0.11419    -0.00926     0.03147    -0.03233     0.11833
129    -0.10071     0.03879    -0.10112    -0.13738     0.04701    -0.15902     0.00465     0.04896     0.03609    -0.01276
130    -0.02926     0.01192    -0.06474     0.01417    -0.12895    -0.00109    -0.01484     0.04296    -0.01336     0.25715
131     0.03191    -0.00447     0.12517     0.03724    -0.03112    -0.10648     0.00976     0.04206    -0.05513     0.02652
132    -0.02791     0.10257     0.00906    -0.02115    -0.19861     0.05632     0.01104    -0.00370    -0.02072     0.03447


            111         112         113         114         115         116         117         118         119         120
111     0.54380
112    -0.04621     0.45840
113    -0.00407     0.00563     0.38877
114    -0.01732    -0.01978    -0.03307     0.53180
115    -0.01137    -0.01145    -0.01333     0.00326     0.35207
116     0.02341     0.05590    -0.00884     0.01594    -0.00639     0.41086
117     0.00418    -0.03133    -0.00237     0.02326    -0.00624     0.01925     0.46853
118     0.03363     0.02285     0.02730    -0.00748     0.00635     0.01265     0.01384     0.24887
119     0.06391    -0.12008    -0.08929    -0.04367     0.02693    -0.10123    -0.20995    -0.00824     0.88606
120    -0.00702     0.00130    -0.01412    -0.06567     0.12105    -0.01146     0.02709     0.00136     0.00606     0.66255
121    -0.06612     0.01279     0.04106     0.20318    -0.02165     0.08720    -0.02185     0.01218    -0.02628    -0.01083
122     0.02899    -0.08388    -0.02932    -0.02413     0.01868     0.00550     0.18087    -0.01368     0.00435     0.00832
123    -0.00891    -0.04181     0.00370     0.06361     0.12507    -0.02991     0.00213     0.04720     0.00559     0.00943
124    -0.03379     0.02792     0.03567    -0.02933    -0.04265     0.00108    -0.06160     0.01293     0.03403     0.01467
125     0.15431    -0.06187    -0.00444     0.07873     0.04907     0.15820     0.04645     0.01418     0.00515     0.06558
126    -0.05337     0.05336    -0.01899     0.00633     0.03034    -0.13952    -0.05473    -0.09133    -0.02323    -0.01515
127    -0.09665     0.02339    -0.00435     0.00153    -0.02461    -0.02401    -0.04990     0.05240     0.01349     0.00931
128     0.09967     0.03499    -0.03542     0.00979     0.05537    -0.09248    -0.08088    -0.00026    -0.00710    -0.06340
129    -0.07834     0.04463    -0.00352    -0.08792    -0.15878    -0.03812    -0.02152    -0.09598     0.00047    -0.05156
130     0.16140    -0.13564    -0.03589     0.03775    -0.01341     0.02615     0.04608    -0.01674    -0.01767    -0.04406
131     0.04775    -0.01118     0.03855     0.12604     0.04281     0.03124     0.03679     0.08113     0.00776     0.02210
132    -0.06276     0.03093     0.01744     0.05654    -0.03627    -0.08175    -0.16738    -0.04051    -0.00658    -0.03856


            121         122         123         124         125         126         127         128         129         130
121     0.56703
122    -0.00060     0.28122
123     0.01861     0.01415     0.30309
124    -0.01245    -0.02147     0.01165     0.62274
125    -0.00722     0.01297    -0.00820    -0.01484     0.37752
126     0.00903     0.00041    -0.00280    -0.04028     0.00359     0.40702
127     0.05492    -0.02786    -0.00837     0.05849    -0.00263     0.01197     0.39009
128    -0.00292    -0.01119     0.00545    -0.02054     0.02237    -0.01608     0.03116     0.45825
129    -0.01536     0.00232    -0.04994     0.03058    -0.01335     0.01190     0.00672     0.01634     0.49110
130    -0.01674     0.01797     0.01551    -0.06592     0.04043     0.01022     0.00290     0.01085     0.00424     0.61217
131     0.03181     0.02123    -0.00372    -0.03185     0.03032    -0.00547    -0.00306    -0.04072    -0.05303     0.04858
132     0.00338    -0.01657    -0.00308     0.05530    -0.01807     0.00197    -0.04163     0.01595     0.00483     0.00111


            131         132
131     0.33881
132    -0.03663     0.47020


ITERATION FOR COMMUNALITIES

     MEAN ABS. DEV.     MAX. ABS. DEV.
  1      0.0619             0.2072
  2      0.0152             0.0546
  3      0.0055             0.0343
  4      0.0026             0.0258
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                                                            K (2)

EIGENVALUES

    6.42826     4.82102     4.29240     3.67863     3.59679     3.25425     3.10643     2.75407     2.41591     2.39131
    2.17978     2.07583     1.91868     1.84993     1.70297     1.57168     1.48823     1.34916     1.27537     1.22339
    1.17258     1.13772     1.00777     0.94283     0.88781     0.84783     0.79189     0.76028     0.66884     0.62995
    0.56367     0.54246     0.53678     0.48217     0.47788     0.46335     0.43001     0.40387     0.39999     0.37162
    0.36682     0.34958     0.33130     0.28966     0.28168     0.26879     0.25180     0.24594     0.23056     0.21481
    0.20620     0.19456     0.16859     0.16808     0.15593     0.14799     0.14197     0.13508     0.11516     0.11304
    0.10841     0.09335     0.09032     0.08438     0.06529     0.05621     0.04700     0.04201     0.03972     0.03453
    0.01957     0.01069     0.00234    -0.00411    -0.01156    -0.01626    -0.02373    -0.03135    -0.03710    -0.03875
   -0.04693    -0.05043    -0.05563    -0.06268    -0.07192    -0.07437    -0.07833    -0.08448    -0.08638    -0.09272
   -0.10674    -0.10896    -0.11274    -0.11748    -0.12798    -0.12871    -0.13738    -0.14662    -0.15378    -0.15474
   -0.16439    -0.16681    -0.17703    -0.18343    -0.18599    -0.19661    -0.20116    -0.20374    -0.21150    -0.21960
   -0.22605    -0.23188    -0.24484    -0.25480    -0.25770    -0.26405    -0.27012    -0.27994    -0.28965    -0.29347
   -0.30112    -0.31883    -0.32160    -0.32665    -0.33045    -0.34584    -0.35785    -0.37352    -0.38758    -0.40729
   -0.42470    -0.48827

CUMULATIVE PROPORTION OF TOTAL VARIANCE

    0.04870     0.08522     0.11774     0.14561     0.17286     0.19751     0.22104     0.24191     0.26021     0.27833
    0.29484     0.31057     0.32510     0.33912     0.35202     0.36392     0.37520     0.38542     0.39508     0.40435
    0.41323     0.42185     0.42948     0.43663     0.44335     0.44978     0.45578     0.46153     0.46660     0.47137
    0.47564     0.47975     0.48382     0.48747     0.49109     0.49460     0.49786     0.50092     0.50395     0.50677
    0.50954     0.51219     0.51470     0.51690     0.51903     0.52107     0.52297     0.52484     0.52658     0.52821
    0.52977     0.53125     0.53268     0.53395     0.53513     0.53625     0.53733     0.53835     0.53922     0.54008
    0.54090     0.54161     0.54229     0.54293     0.54342     0.54385     0.54421     0.54453     0.54483     0.54509
    0.54524     0.54532     0.54533

VARIABLE     ESTIMATED          FINAL
            COMMUNALITY      COMMUNALITY
    1         0.847075         0.847017
    2         0.884417         0.884469
    3         0.864196         0.864202
    4         0.946308         0.947066
    5         0.878016         0.878346
    6         0.811760         0.811708
    7         0.416836         0.416694
    8         0.760066         0.759872
    9         0.709496         0.709475
   10         0.674539         0.679941
   11         0.671999         0.671989
   12         0.814986         0.816156
   13         0.492563         0.492391
   14         0.476583         0.476375
   15         0.625674         0.627165
   16         0.717063         0.717069
   17         0.557927         0.558025
   18         0.565343         0.565416
   19         0.470058         0.470044
   20         0.367032         0.367028
   21         0.803327         0.803332
   22         0.621459         0.621448
   23         0.647265         0.647250
   24         0.766750         0.766672
   25         0.636249         0.636211
   26         0.328359         0.328381
   27         0.350103         0.350049
   28         0.346267         0.346295
   29         0.226527         0.226542
   30         0.201835         0.201833
   31         0.258458         0.258415
   32         0.851294         0.851044
   33         0.820221         0.820203
   34         0.721217         0.721195
   35         0.286150         0.286135
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36        0.112517        0.112446
37        0.124805        0.124788
38        0.491000        0.490088
39        0.075065        0.075019
40        0.518381        0.518337
41        0.113300        0.113298
42        0.337309        0.337238
43        0.118772        0.118762
44        0.135648        0.135635
45        0.226016        0.226037
46        0.159283        0.159250
47        0.318274        0.318249
48        0.025052        0.025051
49        0.391610        0.391615
50        0.114612        0.114655
51        0.190306        0.190288
52        0.267170        0.266969
53        0.148474        0.148485
54        0.068423        0.068416
55        0.531146        0.530856
56        0.103776        0.103721
57        0.146922        0.146893
58        0.604895        0.604835
59        0.249601        0.249571
60        0.251731        0.251700
61        0.593271        0.593277
62        0.281034        0.281012
63        0.426746        0.426714
64        0.455661        0.455674
65        0.114662        0.114672
66        0.646126        0.646273
67        0.281424        0.281413
68        0.321717        0.321699
69        0.296725        0.296687
70        0.719227        0.719202
71        0.695718        0.695721
72        0.707274        0.707300
73        0.158508        0.158518
74        0.457434        0.457451
75        0.248297        0.248292
76        0.344010        0.344025
77        0.381478        0.381584
78        0.659588        0.659568
79        0.521959        0.521948
80        0.100045        0.100034
81        0.295714        0.295737
82        0.775422        0.775734
83        0.302454        0.302407
84        0.692171        0.692166
85        0.269731        0.269608
86        0.524341        0.524275
87        0.605245        0.605223
88        0.464987        0.464990
89        0.445214        0.445103
90        0.277895        0.277848
91        0.162704        0.162624
92        0.197639        0.197623
93        0.807540        0.807530
94        0.851224        0.851314
95        0.741724        0.741303
96        0.871269        0.871270
97        0.817748        0.817783
98        0.676985        0.676823
99        0.831775        0.831824
100       0.800037        0.800025
101       0.480273        0.479116
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K(2) 102         0.697345          0.697350
     103         0.315286          0.315256
     104         0.576405          0.575918
     105         0.533178          0.533039
     106         0.725214          0.725311
     107         0.468904          0.465439
     108         0.834415          0.838061
     109         0.167538          0.167624
     110         0.746275          0.746276
     111         0.523066          0.523159
     112         0.333936          0.333863
     113         0.128766          0.128769
     114         0.601342          0.601360
     115         0.147317          0.147300
     116         0.371485          0.371636
     117         0.371073          0.371006
     118         0.144060          0.144076
     119         0.841164          0.841134
     120         0.600685          0.600704
     121         0.371577          0.371553
     122         0.187992          0.187966
     123         0.160927          0.160860
     124         0.532740          0.532601
     125         0.403725          0.403561
     126         0.324865          0.324830
     127         0.393984          0.393995
     128         0.364605          0.364616
     129         0.397452          0.397457
     130         0.511512          0.511502
     131         0.276124          0.276043
     132         0.320787          0.320781
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K (3)

FACTOR MATRIX BEFORE ROTATION

	FACTOR									
VARIABLE	1	2	3	4	5	6	7	8	9	10
1	0.04153	0.43006	0.08496	0.10851	0.06546	0.04454	0.01101	0.41904	0.15482	0.50417
2	0.65992	0.07424	0.32857	-0.12034	0.30627	0.05415	-0.26294	0.03675	0.03438	-0.20346
3	0.14879	0.21874	-0.38684	0.63635	-0.01612	-0.16292	-0.25421	-0.27758	0.17859	-0.05058
4	0.09359	0.27290	-0.23059	-0.42113	0.22103	-0.30114	0.08428	-0.40288	-0.10027	0.23351
5	0.13317	0.08074	-0.10539	-0.07783	-0.29547	0.57071	0.05526	-0.30049	-0.25580	0.07214
6	-0.21247	0.33895	-0.13696	-0.04526	0.34445	0.10809	0.29682	0.19343	0.04031	-0.25816
7	-0.07361	0.22176	-0.03382	0.00491	0.03631	0.22526	-0.01560	0.00321	-0.11493	-0.20389
8	-0.01363	-0.46732	-0.16450	0.14108	0.28407	-0.26090	0.05799	0.15494	-0.26602	0.07757
9	-0.51376	0.02006	0.37439	-0.04035	0.21934	0.04969	-0.33749	-0.25312	0.04982	0.09210
10	0.05479	-0.01198	-0.04325	0.00077	-0.07369	0.00744	0.05408	0.03059	-0.05395	0.04166
11	0.28096	-0.07554	0.31572	0.22595	0.14548	-0.00609	0.43180	-0.23913	-0.01133	0.01104
12	0.00221	0.00013	-0.16629	-0.08908	0.03803	-0.09953	-0.05457	-0.18912	0.15390	0.10232
13	0.13049	-0.01284	0.07319	-0.07636	-0.07028	-0.12652	-0.08405	-0.03161	-0.17486	0.17980
14	-0.00671	-0.02353	-0.14212	-0.03019	0.11022	0.07430	-0.23957	0.05698	-0.26227	-0.13895
15	-0.03884	-0.05046	-0.10192	-0.07734	0.11041	0.01087	0.05123	-0.10812	0.04917	-0.08324
16	-0.18168	0.29850	0.26239	0.18159	-0.13954	-0.39183	0.13204	-0.09733	-0.20023	-0.21689
17	0.05590	0.06369	0.05263	-0.22392	-0.33664	-0.22529	0.04116	-0.00560	0.18734	-0.18149
18	0.03743	0.24889	0.08790	0.10610	0.04351	-0.06273	-0.22765	0.02483	-0.42574	0.01997
19	0.07077	-0.09264	-0.14568	0.01589	0.09229	0.07008	-0.04199	0.00655	0.08548	-0.10727
20	0.06187	0.13271	0.03350	-0.02547	-0.00519	-0.01532	-0.12924	0.04910	0.09797	0.01912
21	0.74728	0.15920	-0.29792	-0.04134	-0.11855	-0.02877	0.14165	0.10429	-0.00676	-0.16262
22	-0.15238	0.56725	-0.02553	0.06389	0.38502	0.28424	0.11969	-0.11538	0.12925	0.03145
23	0.25743	0.40173	0.41737	-0.01806	0.00235	-0.16380	-0.16862	0.09739	-0.08042	0.09391
24	0.36942	-0.21675	0.47720	0.17625	0.29166	0.02491	0.17887	-0.23843	0.14771	-0.07800
25	0.16473	0.06271	-0.00401	-0.11825	-0.37759	0.53556	-0.01176	-0.28005	-0.13413	0.07542
26	0.05153	-0.03452	-0.01679	0.12061	-0.16557	-0.04698	0.40923	-0.01386	-0.10360	0.11010
27	-0.19699	0.14167	0.27146	-0.05131	-0.05472	-0.12929	0.15571	-0.15161	-0.09377	-0.00167
28	0.02534	-0.16536	-0.15992	0.15982	0.24402	0.03575	0.17740	-0.05480	-0.16711	0.10404
29	0.07716	-0.08820	0.04156	0.04188	0.14118	0.04491	-0.17779	0.01083	0.10529	-0.03108
30	-0.07529	-0.12223	0.05505	0.09214	-0.22710	0.03078	0.01361	-0.04320	-0.02147	0.09215
31	-0.18115	0.17886	0.00776	-0.01596	0.00702	0.08679	0.06759	-0.01395	0.08918	-0.22041
32	-0.05413	0.15153	-0.27663	-0.45039	0.13635	-0.30410	0.09257	-0.41724	0.03652	0.05945
33	0.14723	0.18245	-0.38651	0.59189	-0.01304	-0.15727	-0.23178	-0.29159	0.22951	-0.03477
34	-0.14300	0.39770	-0.05679	-0.01227	0.24253	0.09387	0.21460	0.32091	0.26820	0.02322
35	-0.06138	0.15587	0.00305	0.08154	0.12334	-0.07705	-0.11855	0.04715	-0.35436	-0.15752
36	-0.04623	0.02643	-0.03991	-0.03599	-0.01348	0.08218	-0.00662	-0.04949	0.12269	-0.09742
37	-0.20244	0.01211	0.00315	0.05442	-0.08400	0.08150	0.07250	-0.04657	0.01911	-0.04105
38	-0.06832	0.09952	-0.22822	-0.10971	0.27132	0.01139	0.13581	0.01432	-0.03083	0.10486
39	-0.04348	0.05201	-0.02290	-0.03028	-0.04907	0.09182	-0.02961	0.00955	-0.00235	-0.09958
40	0.09361	0.32365	-0.05551	-0.02656	0.21748	0.02495	0.02691	0.01351	-0.15684	0.18000
41	-0.08318	0.04009	-0.01263	0.02915	-0.01981	0.06883	0.03328	0.02701	-0.06969	-0.05943
42	0.35237	0.03276	0.02125	-0.11165	-0.05495	0.07505	-0.12747	-0.09600	0.14397	0.12301
43	-0.12666	0.07920	-0.02465	0.01711	-0.33147	0.06697	0.06366	-0.03645	-0.04467	-0.13932
44	0.06370	-0.06417	-0.19480	0.00225	-0.02355	0.02043	0.05677	0.04816	0.01021	0.02137
45	0.09899	0.04732	0.12677	0.00436	-0.02148	-0.06174	0.13375	-0.03953	0.12339	0.03026
46	0.03365	0.07398	-0.06190	-0.10303	0.04026	0.05477	-0.03549	-0.06991	0.03272	-0.03290
47	0.21455	-0.06413	0.07851	0.01461	0.02645	-0.00279	0.03434	-0.00824	-0.09461	0.09436
48	0.03224	0.02180	-0.01318	-0.02280	-0.00920	0.04798	0.02536	-0.02374	-0.01341	-0.03254
49	-0.07412	-0.26944	-0.06047	-0.01242	-0.16958	-0.20810	0.18591	0.08332	0.21466	0.14563
50	0.03495	0.04469	0.05677	-0.03769	-0.04599	-0.02915	0.01052	-0.07560	-0.05664	-0.02718
51	0.03983	-0.03312	0.07269	-0.03857	-0.06718	-0.05907	0.09280	-0.05832	0.24965	0.11284
52	0.15146	-0.13442	0.02766	0.00365	0.15171	-0.22303	-0.04715	0.16372	-0.02122	0.03785
53	-0.02835	0.02926	-0.03615	0.05161	0.20396	0.13536	0.15952	-0.05032	-0.04578	0.03471
54	0.00113	0.00038	-0.01409	-0.04647	-0.01198	0.03789	0.00358	-0.05189	0.08408	-0.01491
55	-0.03687	0.06910	-0.12563	-0.15448	0.04072	-0.11562	-0.08519	-0.14449	0.09129	0.12169
56	-0.09963	0.11476	-0.02007	-0.01162	-0.07674	0.07724	0.00886	-0.00261	0.09233	-0.07856
57	-0.01663	-0.00087	0.00500	-0.06197	-0.09204	-0.02131	-0.13193	0.04774	0.03696	-0.00578
58	0.03630	-0.34504	-0.08840	-0.17248	0.06269	-0.01671	0.06012	-0.27422	-0.07744	-0.37458
59	-0.14516	0.13091	0.02816	-0.00528	-0.07069	0.11625	0.07926	0.00488	0.23362	-0.09736
60	-0.25417	-0.13694	-0.19332	0.08657	0.08512	0.11339	-0.02574	-0.02600	-0.13394	0.00712

61	-0.28840	0.22467	0.13085	0.34276	0.13559	0.31895	0.14584	-0.11561	0.13139	-0.05420
62	0.06671	-0.04246	0.21436	0.10426	-0.11573	0.01272	-0.06509	0.12391	-0.00641	0.03115
63	-0.41372	0.03734	-0.27422	0.00542	-0.03371	0.10619	-0.14915	0.11725	-0.10415	-0.13391
64	-0.02535	-0.04732	0.25306	0.05436	-0.30957	-0.06941	-0.22940	0.11363	0.08995	0.02937
65	0.09007	-0.06234	0.13417	-0.01928	0.01545	0.05312	-0.03006	-0.01946	-0.11244	-0.00607
66	-0.10709	0.33679	-0.21063	0.02330	0.30143	0.09556	0.25619	0.03715	-0.05801	0.10952
67	-0.32179	0.02790	-0.11622	-0.10715	0.02063	-0.06881	-0.04465	-0.07084	0.15315	-0.07923
68	-0.06214	0.19824	-0.13128	-0.23714	0.16663	0.00016	0.00015	-0.02233	0.08483	-0.02904
69	-0.15186	-0.24717	0.09639	-0.03696	0.01564	-0.18811	-0.00118	-0.09905	0.08451	-0.01735
70	-0.73140	-0.01583	0.27433	0.01629	-0.01623	-0.01954	0.11962	-0.05725	-0.02343	-0.00402
71	0.30491	-0.17264	0.42703	0.17973	0.41564	0.09789	0.01319	-0.22124	0.03715	-0.11025
72	-0.10747	-0.47084	-0.21303	0.18588	0.22732	-0.29600	-0.02894	0.21515	0.03648	-0.13058
73	0.05538	0.10811	0.09777	0.05405	0.03243	-0.05708	0.03792	0.09943	-0.06140	0.06733
74	0.00893	-0.18110	0.14552	-0.05017	-0.33509	-0.00294	-0.05013	-0.04576	0.11573	-0.21656
75	0.19565	0.08099	-0.04561	0.12999	-0.15820	-0.00752	0.23356	-0.03863	-0.11347	0.05578
76	0.00708	-0.28770	-0.19145	-0.27838	-0.11269	0.13538	0.10601	0.04025	0.16146	-0.13748
77	0.13105	-0.23651	0.20083	0.13164	0.11496	0.02308	0.30881	-0.11615	0.07236	0.08744
78	0.23601	0.16842	0.31746	-0.20931	0.17656	0.01438	-0.41519	0.09159	0.12014	-0.08289
79	-0.35530	-0.33993	-0.10034	-0.08122	0.22311	0.26703	-0.14562	-0.04794	0.09160	0.07265
80	-0.12946	0.03756	-0.08412	0.03054	-0.01664	0.02539	-0.01018	-0.00062	0.02022	-0.00705
81	0.21204	-0.16636	-0.02228	-0.09492	0.16964	0.07090	0.19919	0.10173	0.00434	0.02460
82	0.42439	0.21883	-0.08078	-0.22796	0.08489	-0.18934	-0.13257	0.07321	-0.00650	-0.28364
83	0.25549	-0.03844	-0.11273	-0.05648	-0.07363	-0.06414	0.22291	0.14760	0.05276	-0.09623
84	0.28010	-0.39056	-0.28807	-0.04181	0.24335	0.33106	-0.22408	0.07249	0.05735	0.19851
85	-0.17089	-0.11271	0.15053	0.17785	0.19021	0.08758	0.07232	-0.00127	0.00181	-0.06596
86	0.18029	0.06629	-0.11098	0.18432	-0.15879	-0.07196	0.17960	0.11167	-0.11395	-0.00265
87	0.16876	0.10123	-0.32655	0.52441	-0.12441	-0.06936	-0.10821	-0.18848	0.16468	-0.08104
88	-0.51865	-0.06954	-0.08311	-0.06935	-0.18040	-0.05478	-0.17264	0.05895	0.04835	-0.06480
89	0.28843	-0.06115	-0.11144	-0.19102	-0.16987	0.30891	-0.06496	0.07415	0.02680	0.03939
90	0.21220	-0.08110	-0.15272	-0.00617	-0.17460	0.00913	0.20241	0.08073	-0.04296	-0.01860
91	-0.17084	-0.07962	0.02838	-0.11507	-0.11239	-0.03119	0.10921	0.01031	0.09917	-0.02460
92	0.10873	0.20004	0.09133	-0.06071	-0.12119	-0.05397	-0.05265	-0.04050	-0.02988	-0.00168
93	0.45895	-0.12903	0.28116	-0.04115	0.51732	0.15349	-0.27050	-0.05050	0.17244	-0.15668
94	-0.00414	0.38495	0.01779	0.12297	0.09782	0.06526	0.00443	0.41438	0.23295	0.43535
95	0.01461	0.15232	-0.19813	-0.39673	0.13969	-0.29383	0.05603	-0.37747	0.06409	0.05569
96	0.14569	0.24383	-0.30717	0.62286	-0.02019	-0.16920	-0.27672	-0.29043	0.13254	-0.06405
97	0.22432	0.48954	0.25669	-0.16375	-0.14817	0.15889	-0.13692	-0.10063	-0.06464	0.06277
98	0.10451	0.07832	-0.04523	-0.03478	-0.30557	0.42961	0.08758	-0.29479	-0.15864	0.06597
99	-0.18415	0.34071	-0.13398	-0.10336	0.29134	0.10920	0.28049	0.19873	0.16974	-0.26291
100	0.44845	0.05392	-0.35268	0.10413	-0.15334	-0.12421	0.26387	0.20030	-0.03634	-0.22407
101	0.06924	0.10018	-0.01692	-0.10699	0.03198	-0.16703	0.00231	-0.06026	-0.18893	0.11891
102	0.31243	-0.00710	0.35845	0.24737	0.13596	-0.05533	0.46465	-0.21027	-0.06956	-0.02132
103	0.03986	0.11890	-0.08294	-0.04219	0.15000	-0.05733	0.00620	-0.03078	-0.08675	0.20731
104	-0.02068	0.01992	-0.13882	-0.06389	0.06360	-0.10027	-0.03769	-0.16422	0.06127	0.11627
105	0.29023	0.05331	0.04721	-0.20310	-0.11260	-0.18679	0.03715	0.12595	0.01134	-0.27233
106	0.19779	-0.20468	0.05414	-0.09060	-0.18433	-0.09369	0.12732	-0.09965	0.55072	0.26727
107	0.04789	-0.00879	-0.02840	-0.01903	-0.05348	-0.02182	0.03921	0.02906	-0.04986	0.03634
108	0.12145	-0.23500	0.09290	0.09865	0.08227	-0.22202	-0.01437	0.15912	-0.19273	0.29343
109	0.05512	0.10451	0.02444	-0.05683	-0.03756	-0.01644	-0.01520	-0.09819	-0.03463	0.01196
110	0.40928	-0.16536	-0.32026	-0.18935	-0.08517	0.37100	-0.04477	0.15107	0.04974	0.12559
111	-0.02588	-0.12364	-0.17545	-0.05023	0.18970	0.30618	-0.09485	-0.12698	-0.13350	-0.00171
112	0.06823	0.11441	0.18101	-0.06646	-0.05335	-0.06369	0.02222	0.09909	-0.16457	-0.01293
113	0.07252	0.14108	0.08422	0.00430	-0.03565	-0.03097	-0.01586	0.06639	-0.04589	0.13605
114	0.14641	-0.10799	-0.05248	-0.08887	0.07115	-0.21591	-0.07749	0.00043	-0.16402	0.13216
115	-0.02237	0.02072	-0.10329	-0.10636	0.10199	-0.04439	0.09777	-0.09144	0.01294	0.02990
116	0.07315	0.02329	-0.07628	-0.03538	0.04760	-0.05278	-0.24824	0.04509	-0.04607	-0.02341
117	0.14793	0.07735	-0.14676	0.01096	0.20169	0.00342	0.02734	0.04125	-0.16083	-0.01945
118	0.00240	0.04195	-0.01130	-0.07845	-0.00124	-0.00641	-0.02968	-0.07952	-0.00503	0.04238
119	-0.73947	-0.47722	-0.01478	0.01056	-0.01837	-0.00428	0.02168	-0.00419	-0.00369	0.11130
120	-0.36287	0.43216	-0.27044	-0.09135	0.16123	0.02648	0.08704	0.09227	0.01743	-0.21939
121	0.18531	0.02369	-0.17176	-0.25632	-0.25942	-0.14277	-0.14558	0.03055	0.11506	0.10190
122	-0.00909	0.00010	-0.20059	0.10952	0.13653	0.04282	0.01121	0.05963	-0.02366	0.13767
123	-0.02919	0.01852	-0.13859	-0.18218	0.04357	-0.10643	0.08131	-0.13402	-0.02930	0.06781
124	-0.35311	0.23160	0.25649	0.05833	-0.14871	-0.09851	-0.15464	-0.14522	-0.02846	0.05026
125	0.00631	-0.02611	-0.13877	-0.08705	0.14001	0.02531	-0.14213	-0.02422	-0.19238	-0.08950
126	0.11270	-0.02130	-0.13195	0.02926	-0.30[illegible]	-0.07882	0.30620	0.02599	-0.08181	-0.06697

127	-0.02544	-0.02307	0.04192	-0.08847	-0.22086	-0.26038	-0.13045	0.07753	-0.07295	-0.08021
128	0.15558	-0.24885	0.24245	-0.20145	0.07886	0.17917	0.14941	-0.04682	0.08025	-0.11343
129	0.00427	-0.03701	0.24151	0.28250	-0.21866	0.14576	-0.08324	0.26507	-0.14073	-0.17004
130	0.21948	-0.24566	-0.36105	0.28351	0.00425	0.16523	-0.10318	-0.01114	-0.04249	0.03636
131	0.05230	0.03171	-0.12493	0.01298	0.08372	-0.03210	-0.03841	-0.12354	-0.28204	0.21713
132	-0.04210	0.00005	0.12804	0.17018	-0.13298	0.11592	0.07699	-0.11999	0.06612	0.19400

	FACTOR									
	11	12	13	14	15	16	17	18	19	20
VARIABLE										
1	0.34316	0.03129	0.00776	0.09246	0.03757	-0.01053	0.05662	0.17453	-0.00950	0.00823
2	-0.06852	0.09968	0.01225	-0.08793	0.11563	0.00246	-0.11591	0.05000	-0.04412	0.07271
3	-0.04325	0.11645	-0.05360	-0.04115	0.02278	0.00635	0.06651	-0.01091	0.01993	-0.00331
4	0.14272	-0.06836	-0.10587	-0.16957	-0.04612	-0.09599	0.03456	-0.25050	-0.07744	0.08392
5	0.12383	0.22023	-0.01094	0.11869	0.26965	-0.25257	-0.00229	-0.02947	-0.09949	-0.02927
6	-0.28541	0.34434	-0.09726	0.19529	0.06423	0.03413	0.04345	-0.09412	-0.03606	0.15915
7	0.04546	-0.07679	0.16804	-0.17601	-0.10346	0.04081	-0.11640	0.04771	-0.01331	-0.05881
8	0.15300	0.29752	0.07784	-0.06637	0.12948	-0.22987	-0.11214	-0.00180	-0.10438	-0.03599
9	0.05061	0.15962	0.01898	-0.00091	0.06835	-0.05581	0.03077	-0.03678	0.05580	0.04157
10	-0.02026	0.00951	-0.01051	0.02236	0.04531	-0.14477	-0.17368	-0.08066	0.58753	0.33179
11	0.13111	0.05487	0.09654	0.13079	-0.21699	-0.03428	0.15366	0.05191	0.05236	0.07020
12	-0.12251	0.00571	0.67955	0.36662	0.15175	0.10586	-0.10343	0.15224	0.03032	0.02183
13	-0.32119	0.07079	-0.21566	0.28569	-0.06965	0.19808	0.04798	0.04411	0.09330	-0.12871
14	0.16165	0.03945	0.06022	0.16893	-0.24602	-0.07276	0.14955	0.00902	0.17527	-0.07901
15	0.22250	0.16033	-0.19208	0.00172	0.13920	0.24466	-0.21149	0.39087	0.19972	-0.19190
16	0.00289	-0.18543	-0.06500	0.12764	0.21043	-0.16744	-0.12178	0.11194	-0.05923	-0.09908
17	0.23789	0.36914	0.09132	0.00666	-0.11863	0.11802	0.05389	-0.09485	0.03344	-0.05339
18	0.04266	0.06385	0.12292	-0.00890	-0.15727	0.17793	-0.12070	-0.13916	-0.03947	0.05443
19	0.23409	-0.23620	-0.17187	0.31634	0.13648	0.13736	-0.13380	-0.24378	-0.08931	0.02083
20	-0.08863	0.01503	-0.04292	0.09793	-0.15775	-0.31035	-0.30950	-0.08649	0.02474	-0.15884
21	0.02339	0.00681	0.11293	-0.06872	-0.02829	-0.01950	0.05491	0.00263	0.08117	-0.06118
22	-0.00529	-0.07124	0.03426	-0.03369	0.06518	0.02214	0.04213	-0.12306	0.16018	-0.22781
23	-0.05026	0.00009	-0.05309	0.06067	-0.08525	0.15961	-0.13038	0.01544	-0.05786	0.01810
24	0.06146	0.00451	0.00997	0.07065	-0.08266	-0.10206	-0.02737	0.01232	0.05348	0.02132
25	0.01067	0.14208	-0.03620	0.07208	0.09598	-0.06620	-0.00662	0.06297	-0.06529	0.05936
26	-0.03254	0.00953	0.04018	0.01363	-0.18516	0.01018	0.00686	0.03961	0.02191	-0.00395
27	-0.03636	0.10103	0.10411	-0.05930	-0.05812	-0.09062	0.12255	0.08676	0.02320	-0.01008
28	0.08372	0.03814	0.13836	-0.08104	-0.05513	0.08583	0.03663	-0.05370	-0.04634	-0.10967
29	-0.05271	-0.08113	-0.03626	-0.04707	0.03320	-0.06328	-0.13519	-0.02720	0.14325	-0.06294
30	0.01573	0.06088	-0.01740	-0.04408	-0.04938	0.14373	-0.09175	0.00581	0.05183	0.15333
31	-0.14986	-0.07676	-0.00911	-0.05144	-0.00984	-0.02877	-0.16707	0.07943	-0.01063	0.03829
32	0.33219	0.16798	-0.19195	-0.06840	-0.05899	0.12814	-0.13772	0.04358	0.02875	0.06563
33	-0.10679	0.11610	0.01233	-0.05088	0.05572	0.03592	0.04691	0.04709	-0.02354	0.02125
34	-0.01205	0.32275	-0.06998	0.26669	-0.08307	-0.16712	0.05857	-0.03202	-0.05056	0.02717
35	0.01945	0.11556	0.07142	-0.02588	-0.08862	-0.01677	-0.11977	0.00148	-0.00073	-0.01393
36	0.06905	-0.13859	0.02188	-0.08615	-0.06838	-0.05426	-0.00635	0.10447	-0.04028	0.02763
37	0.03257	-0.00862	0.02237	-0.08920	0.11267	0.06838	0.04196	-0.14071	0.02184	-0.00809
38	-0.21982	0.12150	-0.02117	-0.11330	0.07821	0.11140	-0.04820	0.03950	-0.02074	-0.03107
39	-0.01309	-0.00629	0.02214	-0.02153	-0.01226	-0.00255	-0.05859	0.05765	-0.03146	0.00128
40	-0.23569	-0.27768	-0.06380	-0.09660	0.33686	-0.07153	0.02772	-0.00663	-0.00781	0.12864
41	0.09749	-0.01286	0.11611	-0.10550	0.05099	0.08747	0.04154	-0.05164	-0.04437	0.15760
42	0.00130	-0.07109	-0.01746	-0.02333	-0.12503	-0.13442	-0.02082	-0.08751	0.06915	-0.17174
43	-0.00382	0.00921	0.03476	-0.05535	0.03825	-0.07025	-0.03273	0.06114	-0.00405	-0.05949
44	0.01741	-0.11685	0.01287	0.12980	-0.03867	0.06444	-0.14127	-0.05855	-0.05420	0.06109
45	-0.10837	-0.01289	0.00242	-0.08847	0.11744	0.04227	-0.09602	-0.17225	-0.12022	0.01877
46	0.02391	-0.16486	0.05164	0.03561	-0.12174	-0.01453	0.03836	0.13660	-0.04756	0.00891
47	-0.00145	0.04842	-0.05004	0.02410	0.22609	0.10361	0.02422	0.10856	-0.04576	-0.02944
48	-0.01026	-0.01358	-0.01171	0.00634	-0.04615	0.02784	0.00870	0.01602	-0.00691	-0.03069
49	-0.07957	0.00567	-0.08840	-0.03945	0.05980	-0.14724	0.01585	0.18320	-0.05382	0.07984
50	-0.01387	0.09135	0.00396	-0.09266	0.13221	-0.05040	-0.05626	-0.03745	-0.01023	0.00761
51	-0.06406	0.00944	0.02471	0.00562	0.08292	0.01586	-0.03523	-0.14188	-0.00151	0.01587
52	-0.08499	0.13665	-0.04349	0.08740	-0.01651	0.13188	0.11367	-0.03410	0.12355	-0.00805
53	0.00446	-0.02513	0.00268	-0.09697	0.05591	0.00459	0.04409	-0.00037	0.05738	-0.08729
54	0.00135	-0.09827	-0.04558	0.01159	0.01921	0.01198	0.10225	0.05502	-0.00687	0.10019
55	-0.09541	-0.06501	0.57209	0.22270	0.06787	-0.02115	-0.02567	-0.02459	0.03869	-0.07282

56	0.00383	-0.06300	0.03771	-0.10129	-0.09562	-0.06989	-0.07597	0.09373	0.01787	-0.01835
57	0.03174	-0.02583	0.02983	0.03385	-0.18053	0.01777	-0.02631	0.02725	0.00056	0.11333
58	-0.37937	0.01590	-0.13026	0.14189	-0.00243	-0.08005	0.06708	0.00641	0.00225	0.02981
59	0.06084	-0.09316	0.06066	-0.07253	-0.03016	0.12532	0.09521	-0.10810	0.04738	0.08272
60	0.09661	0.01203	0.05777	0.08491	-0.11374	0.04718	0.06579	0.01579	0.02610	-0.02549
61	0.17315	-0.03771	0.09121	-0.11052	-0.01774	-0.01233	-0.08979	-0.10514	0.14966	-0.11920
62	-0.00539	0.23361	-0.01950	0.00082	0.07961	0.01735	0.05575	-0.11603	0.06432	-0.21300
63	0.05960	-0.00257	-0.02732	0.11844	-0.10196	-0.01918	0.03328	-0.00565	0.02215	0.00338
64	0.01383	0.04208	-0.04401	-0.02787	0.10479	-0.06001	-0.04384	0.04562	0.01006	0.28933
65	0.05550	0.03875	0.01528	-0.07499	0.07550	0.06330	0.06622	-0.03495	0.08197	-0.03791
66	-0.20206	0.11151	0.00276	-0.15571	0.19458	0.13038	-0.11048	0.04665	0.02263	0.02903
67	-0.01461	-0.06923	-0.00328	0.04009	-0.11701	-0.00233	-0.03365	0.03225	0.01353	0.09619
68	0.06716	-0.04488	-0.05920	0.10610	-0.24014	-0.12680	0.03115	0.00917	-0.05963	-0.06387
69	-0.10555	-0.07548	-0.04352	0.01260	0.02123	-0.06781	-0.06639	-0.01762	0.18421	-0.16054
70	-0.02052	0.01911	0.04283	-0.03146	-0.01945	0.09737	0.03259	-0.03337	0.02957	-0.37170
71	0.15742	-0.00661	0.01219	0.15343	-0.02295	0.06933	-0.03220	-0.05765	-0.04182	0.05159
72	0.16665	0.13870	0.16724	-0.16725	-0.00629	-0.15762	-0.12771	-0.04600	-0.00631	0.02792
73	0.04735	-0.00157	-0.05581	0.06255	0.03677	0.03591	-0.05767	0.07369	-0.04903	0.02271
74	0.17356	0.25287	0.04125	0.12748	-0.13836	0.10371	-0.01861	-0.03484	-0.11414	-0.00944
75	0.01814	-0.01960	0.00801	0.07042	-0.05417	-0.04094	-0.14595	-0.05195	0.05661	-0.04604
76	0.02218	-0.02107	-0.02522	0.04455	0.06191	0.02872	0.03808	-0.06649	0.00582	-0.08588
77	-0.06485	-0.03118	-0.03494	0.03315	-0.04575	0.00068	-0.02679	0.09211	-0.03228	0.08601
78	-0.12893	0.03934	-0.00257	-0.10845	-0.00626	-0.01756	-0.26338	-0.05448	0.04259	-0.06428
79	-0.01762	-0.10152	-0.13056	0.14431	0.09477	-0.04962	-0.11929	0.01457	0.02010	-0.02361
80	0.03311	-0.00187	-0.07355	0.00932	-0.01096	0.05139	0.01539	0.04596	0.00569	0.15640
81	-0.09423	-0.09886	0.02470	-0.15201	0.03684	-0.00055	0.14280	0.09625	0.04484	-0.06383
82	0.24871	-0.12483	-0.02069	0.10629	0.30816	-0.10599	0.29090	0.01472	0.12221	-0.01364
83	-0.00821	-0.09076	0.06375	-0.06445	-0.02514	0.11848	-0.05410	-0.00524	-0.02839	-0.12033
84	-0.03721	0.02367	-0.03120	-0.03812	-0.13662	-0.01134	0.01156	-0.00052	0.07966	0.06417
85	0.07482	-0.13530	-0.05829	0.01149	-0.02164	0.13920	-0.00520	-0.03365	0.05972	0.02499
86	0.13236	-0.15399	-0.07619	0.28297	-0.00887	0.02348	-0.32135	-0.08940	-0.03423	0.02968
87	-0.03352	0.06307	-0.20518	-0.00203	-0.01510	-0.00870	0.03433	0.03141	-0.05324	-0.00446
88	0.04397	0.04164	-0.02781	0.06243	0.08288	-0.05002	-0.03688	-0.05084	0.13545	-0.01957
89	-0.02212	0.18817	0.05779	-0.13170	0.00729	0.16191	-0.14424	-0.04643	-0.08517	0.01228
90	-0.03436	0.00589	0.04155	-0.04393	-0.10850	-0.03457	-0.05470	-0.05918	0.25485	-0.00667
91	0.02678	0.02554	0.03186	-0.03858	0.10141	0.02038	-0.05532	-0.00195	0.03324	-0.08818
92	-0.14910	0.10592	0.01009	-0.13337	-0.16146	-0.02941	0.03011	0.06129	0.08692	-0.03209
93	0.07835	0.00873	0.01344	0.01982	0.09194	0.00032	-0.14178	-0.05022	-0.09736	0.08096
94	0.43245	0.05643	0.03299	0.04889	0.00885	-0.09469	0.02945	0.14381	-0.04459	0.07733
95	0.34205	0.17891	-0.15087	-0.10481	-0.04623	0.08191	-0.14391	-0.00440	0.08335	-0.04291
96	-0.09963	0.20698	0.00548	-0.13637	-0.05236	0.01063	0.08935	-0.02565	0.01039	-0.01492
97	-0.24870	-0.10680	-0.16004	0.20796	-0.07150	0.38287	0.11020	0.06577	0.10235	-0.00723
98	0.11497	0.18806	0.01097	0.12596	0.23780	-0.30162	-0.03128	-0.04661	-0.10011	0.00717
99	-0.28039	0.36150	-0.04055	0.22368	-0.05031	-0.09900	0.05802	-0.18083	-0.05523	0.08085
100	0.16618	-0.27091	-0.09593	0.24847	0.10771	0.10369	-0.19771	-0.12039	-0.04337	-0.06147
101	-0.04885	-0.09585	0.10200	-0.04016	-0.16610	-0.09828	0.10216	-0.36429	-0.19950	0.15940
102	0.06618	0.05379	0.06148	0.05384	-0.21953	-0.06427	0.02116	0.13579	0.04066	0.09731
103	-0.09487	-0.21091	0.00269	-0.12021	0.09481	-0.13282	-0.01160	-0.01995	0.01047	0.02794
104	-0.09518	-0.00271	0.58699	0.27903	0.13550	0.12981	-0.05082	0.08037	0.04131	0.03748
105	0.10046	0.13109	0.15359	-0.18480	0.15231	0.00794	0.32215	0.12413	0.01154	0.01747
106	-0.14199	-0.12988	-0.07945	0.09342	-0.07285	-0.10283	0.20349	-0.12942	-0.02266	-0.03886
107	-0.03109	0.02016	-0.01823	0.00410	0.07225	-0.12535	-0.10387	-0.06569	0.47442	0.25596
108	-0.03706	0.36916	-0.10871	0.18123	0.19138	0.16592	0.10412	-0.30634	0.14475	-0.15874
109	0.04736	-0.01246	-0.08564	-0.03304	-0.00491	-0.10236	0.04607	-0.11649	-0.01886	-0.03210
110	-0.12251	0.20751	0.12497	-0.26451	-0.18311	0.05610	-0.02663	0.00831	0.05890	0.03787
111	0.19106	0.00708	-0.03998	0.15473	-0.09748	0.13883	0.18890	-0.06036	0.07773	0.03548
112	-0.01390	0.05730	0.21997	-0.17871	-0.15403	-0.10457	-0.08875	-0.13592	0.01064	-0.08314
113	0.02485	0.01554	0.01148	-0.03140	-0.03218	0.14722	-0.00382	0.01369	-0.01362	-0.00750
114	-0.23617	0.20393	-0.17967	0.24236	-0.13600	-0.21142	-0.14217	0.30428	-0.09330	-0.08572
115	0.00515	0.02636	-0.13741	-0.07732	0.07072	0.12650	0.01965	0.04728	0.01249	0.01205
116	0.10718	-0.11967	0.07063	0.21156	-0.17743	-0.19921	0.15621	-0.13460	0.08366	-0.09901
117	-0.10357	-0.14380	-0.01655	-0.02537	0.21999	-0.14637	0.11668	0.13571	0.05988	-0.02463
118	0.03626	-0.02542	0.03388	-0.03374	0.05721	-0.05067	0.02789	0.03502	-0.07255	-0.00671
119	-0.05139	-0.01675	-0.03357	0.00183	-0.06621	0.10562	0.00241	-0.03079	-0.08285	-0.03302
120	0.01928	0.02354	0.04114	-0.01727	-0.17007	-0.00272	-0.10572	0.11127	-0.05148	0.07204
121	-0.12769	0.08327	-0.05306	0.04811	-0.12478	-0.16648	-0.06987	0.09003	-0.05108	-0.05779

122	-0.12103	-0.09987	-0.05983	-0.03613	0.07481	-0.04800	0.08331	-0.01157	0.07993	0.08353
123	0.06366	0.03355	-0.03012	0.00412	0.10575	-0.00015	-0.06129	0.04039	0.03794	0.10351
124	0.06426	0.10465	-0.07378	0.12234	0.02037	-0.12870	0.06574	0.04230	0.08317	0.15562
125	0.11099	-0.13042	-0.06838	0.12007	-0.21993	-0.04576	0.15062	0.15590	0.04969	0.04660
126	-0.02849	-0.01075	0.01182	-0.02991	-0.09474	0.05353	-0.04565	-0.03914	0.10172	0.03986
127	-0.02949	0.01262	0.04753	-0.00319	0.12872	0.08930	0.00322	-0.01155	-0.11910	0.37737
128	0.02036	0.13805	0.00233	0.00193	-0.06666	-0.00001	0.00709	0.07259	-0.02043	0.15041
129	0.04047	0.04964	-0.01138	-0.02732	0.04357	-0.06760	0.04579	0.07112	0.02895	-0.01993
130	0.06875	0.02027	-0.05157	0.11298	-0.11260	0.11598	-0.04353	0.02763	-0.07728	0.21179
131	-0.08837	0.02587	0.01752	-0.01874	-0.01367	0.05418	0.02339	0.09657	-0.08851	-0.00978
132	-0.09025	0.06567	0.02185	-0.04671	-0.16858	-0.00604	-0.06870	-0.00614	-0.02469	-0.00751

	FACTOR							
	21	22	23	24	25	26	27	28
VARIABLE								
1	0.08578	-0.05015	0.06739	0.03042	-0.02377	-0.02302	-0.00977	0.04417
2	0.09029	-0.05490	0.04690	0.05400	0.12888	-0.03242	-0.10667	0.02995
3	0.07006	-0.00483	0.04440	-0.01956	0.05744	-0.00940	0.01389	-0.01813
4	-0.03306	-0.27050	0.02186	0.12613	-0.11556	0.01587	-0.03713	0.02524
5	0.03141	0.07306	0.08939	-0.00100	0.04665	-0.03075	-0.08362	-0.09656
6	-0.04810	-0.06175	-0.04113	-0.04433	0.00225	0.02560	0.01623	-0.07557
7	0.14595	-0.13403	0.04349	-0.15152	-0.09315	0.19840	0.14314	0.14894
8	0.11040	-0.03543	0.09179	0.00269	0.01116	0.03608	-0.00888	0.03608
9	0.05820	0.00880	-0.01530	0.00958	0.08257	0.04937	0.01140	0.08646
10	0.30782	0.05076	-0.18340	0.06793	-0.07577	-0.05830	0.01031	0.00556
11	-0.13388	0.03877	0.01024	-0.06392	-0.04645	0.07694	0.10440	-0.00886
12	-0.04168	-0.09019	0.01161	0.01103	-0.02416	-0.03252	-0.05514	0.02749
13	0.10720	-0.06590	0.11249	-0.04241	-0.06656	0.05946	0.15008	0.03760
14	-0.13551	-0.14669	0.01276	0.10740	0.10818	-0.13345	0.10845	-0.04996
15	-0.06492	0.11492	-0.10663	-0.18487	-0.02208	0.09967	-0.13356	-0.08103
16	0.01994	-0.00838	-0.02117	0.07204	-0.00845	-0.10966	-0.06539	-0.00074
17	0.05327	0.02112	0.01197	0.01175	0.01980	-0.00991	0.12185	-0.00880
18	-0.02501	0.25686	-0.01410	-0.04663	-0.19583	0.08395	-0.06698	-0.09166
19	0.10974	0.01828	0.00530	-0.06834	-0.07245	0.02043	0.09902	0.07039
20	-0.16320	-0.00227	-0.07820	-0.06869	0.01966	-0.01832	-0.02257	-0.07710
21	-0.02056	0.04255	0.01278	0.00758	0.01410	0.01306	-0.09225	0.11333
22	-0.03237	0.02016	0.11483	0.07673	-0.04818	0.08374	0.02363	0.03639
23	0.10674	-0.13920	-0.07890	0.10628	0.21012	0.04651	-0.02020	-0.08565
24	-0.14465	0.04659	0.18587	-0.03563	-0.14423	-0.01749	0.10349	-0.03047
25	0.04382	-0.02050	0.03949	-0.04966	0.00633	-0.02637	0.00011	-0.01384
26	-0.11413	-0.04913	0.06282	0.06515	0.08762	0.09882	-0.02801	-0.09088
27	0.10563	0.04009	-0.06269	-0.04681	0.04752	-0.02252	-0.12029	0.20574
28	0.17883	-0.02187	-0.14646	0.03593	0.07619	0.08334	-0.00008	-0.04701
29	-0.13668	0.00664	0.14224	0.14345	-0.00207	0.00746	-0.14514	-0.03692
30	-0.05434	-0.03335	0.17827	0.01067	-0.07339	0.00689	-0.04659	-0.02030
31	-0.11556	-0.08639	0.00807	0.05409	-0.12238	0.00967	0.06535	0.11636
32	-0.06797	-0.08452	-0.01203	-0.03361	-0.01096	0.00296	-0.06416	-0.06252
33	0.07219	-0.04584	0.03343	0.03345	-0.00395	-0.00525	-0.03064	-0.00380
34	0.07662	-0.03912	-0.00735	0.04925	-0.03634	0.08123	-0.05924	-0.07864
35	-0.00231	0.09382	-0.00079	0.00362	0.00546	-0.05480	-0.03687	-0.10066
36	0.07348	0.06499	-0.02921	0.07929	0.04035	0.03772	-0.00822	-0.00226
37	-0.03329	-0.02568	-0.02413	-0.02911	0.06029	0.01542	-0.03315	0.01673
38	-0.05519	0.33064	-0.01139	0.13451	0.06688	-0.16128	0.21044	0.11019
39	0.05614	-0.05952	-0.05359	-0.01520	-0.04130	0.12014	0.10487	-0.03417
40	0.07601	-0.00611	0.22116	-0.21754	0.09957	0.10964	0.02703	-0.04938
41	-0.02981	-0.02855	-0.00740	-0.08324	-0.03503	0.03854	-0.00254	0.03480
42	-0.01513	0.12254	-0.07542	0.01246	0.03028	-0.02703	0.15506	-0.01897
43	0.05770	-0.13388	-0.00491	-0.04941	-0.05568	0.06294	0.03117	0.11711
44	0.01832	-0.03202	-0.01796	-0.08297	0.01714	-0.00937	-0.01646	0.08087
45	0.05971	0.12032	-0.05640	-0.01748	-0.16845	0.04290	-0.08157	-0.10200
46	0.10671	0.08044	-0.06199	0.15239	-0.06953	-0.01943	-0.04535	-0.06233
47	0.08298	-0.07144	-0.06107	0.24561	-0.09073	0.24034	0.08445	-0.06531
48	0.03066	-0.01808	-0.08844	-0.04282	0.03287	0.01808	0.00872	0.03018
49	0.04029	-0.05409	0.02082	-0.01450	0.10105	-0.10883	0.13197	-0.01101
50	-0.13850	-0.06156	-0.00729	0.04383	-0.05146	-0.06897	0.08216	-0.07810

K(3)

51	-0.00251	0.10548	0.00737	0.03520	0.08378	0.17948	0.00542	0.02198
52	-0.07669	-0.06350	0.07626	-0.05335	-0.08312	-0.03492	-0.09411	0.05840
53	0.00462	-0.03434	-0.04642	0.05419	0.06742	-0.09173	0.04333	0.06788
54	0.04823	0.02959	0.02231	0.08562	0.07699	-0.00115	-0.03922	0.00567
55	0.00248	-0.09438	0.00322	-0.05285	-0.01656	-0.00913	0.04522	-0.03847
56	-0.02995	0.01011	-0.01328	-0.00236	-0.02505	0.05437	0.05182	0.03315
57	-0.01273	0.17322	0.09616	0.00409	-0.04789	0.09705	0.01160	-0.06611
58	0.00894	-0.03699	-0.00961	0.06288	0.06433	0.11007	-0.08971	-0.03965
59	-0.06608	0.01313	-0.09642	-0.00560	0.13600	-0.10856	-0.01568	-0.09747
60	0.04358	-0.02662	0.07855	0.05837	0.08540	0.01181	0.02290	-0.15103
61	-0.01466	-0.14378	0.00642	-0.00307	0.10010	-0.05788	0.02107	-0.08479
62	-0.07296	0.01191	-0.03046	0.15655	-0.14549	-0.00596	0.02148	-0.05900
63	-0.00812	-0.11073	0.06919	0.09499	-0.05507	0.14536	-0.14226	-0.02151
64	-0.26407	-0.02106	0.12665	0.00820	-0.07298	0.03108	0.00159	-0.10521
65	-0.04343	-0.01603	0.04451	0.15073	0.04392	0.00975	0.02971	-0.06001
66	-0.13016	0.21044	0.06427	0.17748	0.05837	-0.08205	0.18571	0.05658
67	-0.09967	0.15326	0.14679	0.05952	0.06800	-0.01537	-0.11671	-0.03565
68	0.15951	0.08139	0.13073	-0.04433	-0.02522	-0.09126	-0.03717	0.06050
69	-0.05852	0.05523	0.17453	0.11950	-0.03089	0.02387	-0.07251	0.05129
70	0.19073	-0.07107	0.06759	0.04709	0.06898	0.00756	-0.02441	-0.11999
71	0.12065	0.09459	0.10067	0.02624	-0.10707	0.03825	0.04233	0.04045
72	0.03171	0.08055	0.04908	-0.05769	0.08271	0.13561	0.06125	0.00547
73	0.03122	-0.12025	-0.01812	0.17406	0.17314	0.03408	-0.08090	0.00365
74	0.05043	-0.04775	-0.17685	0.11038	-0.03691	-0.06864	0.03574	0.10717
75	-0.05465	-0.00447	0.02212	0.08049	0.15243	0.06713	-0.08667	-0.03502
76	0.08970	-0.08917	0.10992	0.09686	-0.01413	-0.05547	-0.00866	0.01649
77	-0.02426	-0.19064	0.00839	-0.01516	0.05339	-0.11182	0.09760	-0.15971
78	0.04166	-0.17044	0.05817	0.05794	0.20135	-0.03181	-0.00815	-0.09892
79	-0.11798	-0.04827	-0.02200	0.10006	-0.04022	-0.03168	-0.00176	0.02315
80	-0.08450	-0.05907	0.00445	0.01417	0.13422	-0.05004	0.06723	-0.01681
81	0.08863	-0.04196	-0.09131	-0.01479	-0.03124	-0.10580	-0.13785	-0.01816
82	-0.10315	0.04267	0.07599	0.01571	0.03750	0.06528	0.15084	-0.05631
83	0.16324	-0.01512	0.05472	-0.05225	-0.10157	-0.07302	-0.04313	-0.16463
84	-0.15434	-0.10039	-0.14097	-0.02295	0.01682	0.10657	0.07465	-0.06475
85	-0.01933	0.03390	0.16757	0.07051	-0.08096	-0.10019	-0.12582	-0.01862
86	-0.11760	0.00865	-0.03744	0.05848	0.26699	0.05139	0.01031	0.13868
87	0.05528	-0.10061	0.05888	0.00001	-0.08609	-0.07266	0.02615	-0.03309
88	-0.03034	0.01402	0.15739	0.06014	0.07753	0.05665	0.15581	-0.02628
89	0.03793	0.03231	0.21010	0.04061	0.03381	-0.01557	-0.01783	0.09901
90	0.03877	-0.06349	0.09531	0.10816	-0.04398	-0.01927	0.01339	-0.06712
91	0.00236	-0.05578	0.12514	-0.07106	-0.00503	-0.00101	0.14938	-0.07857
92	-0.00541	-0.02546	0.07142	0.02705	-0.00296	0.01551	-0.05336	0.09872
93	0.13249	-0.03204	0.02628	0.00005	0.00267	-0.07135	-0.00374	0.00636
94	0.00954	0.02089	0.05667	0.09034	-0.09285	-0.02921	-0.06731	-0.01591
95	-0.08995	-0.07956	-0.06189	-0.10201	-0.03581	0.05926	-0.04263	-0.05616
96	0.06552	0.03688	0.03525	0.03087	0.06320	-0.01363	-0.03651	-0.00885
97	-0.02363	-0.01946	-0.05313	-0.05727	-0.02803	-0.03079	-0.01802	-0.06077
98	0.05363	0.06029	0.07633	-0.07069	-0.00809	-0.08405	-0.04549	-0.05132
99	0.01696	-0.00957	-0.04461	-0.08383	0.02441	0.05517	-0.02758	-0.08682
100	0.02442	0.04304	0.03801	0.00492	0.03657	-0.02807	0.03053	-0.00368
101	0.01881	-0.08328	0.00662	0.25058	-0.10331	-0.09989	0.09786	0.02474
102	-0.15842	0.01267	0.01276	0.00498	-0.00227	0.02044	-0.02179	-0.02976
103	0.03880	-0.07547	0.16186	-0.21936	0.10775	0.12006	0.00755	-0.10001
104	-0.03653	-0.07482	0.03063	0.04735	-0.02682	-0.00306	-0.04076	0.02486
105	0.11273	0.03871	0.10988	0.01981	0.04853	0.02147	0.04080	-0.06689
106	0.07278	0.13245	-0.01982	-0.02413	0.09631	0.11807	-0.11531	0.03287
107	0.29965	0.08499	-0.11590	0.01805	-0.09556	-0.06029	-0.01418	-0.01692
108	-0.10963	-0.07706	0.08184	-0.22036	0.07487	-0.17073	-0.12691	0.15484
109	0.00356	-0.22437	-0.01004	0.12364	-0.09475	0.04110	-0.07285	0.12970
110	-0.14163	-0.12286	0.03706	0.02784	-0.03537	-0.00483	-0.01646	-0.01350
111	0.04784	0.25094	0.17410	0.10461	0.09817	0.20343	-0.06445	0.04514
112	-0.08924	0.18241	-0.02295	-0.03480	0.12791	0.08313	-0.12405	0.02894
113	0.12440	-0.00505	0.06957	0.04610	0.03903	0.10581	0.09298	0.00848
114	0.14833	0.04857	0.10393	0.15369	-0.09299	0.07595	0.02963	-0.03240
115	-0.04340	0.06005	0.04118	0.09638	-0.02568	-0.15187	0.05155	0.02701
116	-0.07961	0.10400	-0.08484	-0.10609	-0.01182	-0.11449	0.09819	-0.15087

K(3)	117	-0.22284	0.00651	-0.11512	0.06779	-0.11265	0.06791	-0.11600	0.12376
	118	0.06065	0.15013	-0.11216	0.09344	0.09977	-0.11303	-0.18114	-0.10088
	119	0.09238	-0.02048	0.00677	0.02496	-0.02453	-0.01233	-0.07967	-0.08822
	120	-0.05131	0.02419	0.07190	-0.03468	-0.07688	-0.14473	-0.05025	0.08573
	121	-0.00925	0.08787	-0.00128	-0.05587	-0.05172	0.03274	0.03797	0.03529
	122	-0.06453	-0.10829	0.00406	-0.09506	-0.04160	0.06189	-0.05372	0.02731
	123	0.05768	-0.04021	-0.00449	-0.06292	0.07070	0.05176	0.09771	-0.05512
	124	-0.11088	0.02743	-0.09065	0.00159	0.11292	0.13225	0.11223	0.22608
	125	0.12752	-0.06627	0.19196	-0.10751	0.10317	-0.21730	-0.03955	0.10463
	126	0.04402	-0.08903	0.17347	0.07637	0.10013	0.04052	-0.02634	0.03569
	127	-0.09751	0.07608	0.12550	-0.04685	-0.02164	-0.04888	-0.04742	-0.09456
	128	0.02048	-0.03161	-0.00271	-0.06171	0.14078	-0.02211	-0.01481	0.13617
	129	-0.02823	-0.17121	-0.01685	-0.06541	-0.06536	0.02858	-0.01352	-0.01235
	130	-0.06874	-0.04037	-0.18485	0.06133	0.02605	0.04189	-0.03429	0.05441
	131	0.05481	0.09452	-0.15032	-0.05514	0.08285	-0.07259	0.09708	-0.12596
	132	0.07729	0.03022	0.11963	-0.08306	-0.06288	-0.14426	0.06032	0.08499

K (4)

ROTATED FACTOR MATRIX

	FACTOR									
VARIABLE	1	2	3	4	5	6	7	8	9	10
1	-0.03150	0.01883	-0.02051	-0.01837	0.09224	-0.01748	-0.02858	0.04076	0.04968	0.89237
2	0.13590	-0.10482	0.19447	0.01516	-0.00862	0.01931	-0.84697	0.04139	-0.06189	-0.01938
3	-0.02187	-0.00133	-0.02283	0.92041	-0.01000	-0.00994	0.00069	0.00148	-0.03723	0.01696
4	0.01391	0.01388	-0.02405	-0.00635	-0.01550	0.00764	-0.01136	-0.79184	-0.00844	0.01477
5	-0.00780	-0.07342	-0.02309	-0.00893	0.00431	0.92084	0.04345	0.00291	-0.05127	-0.02510
6	-0.03583	0.02923	-0.01046	-0.01272	0.83619	-0.03584	0.00768	-0.01114	-0.05956	-0.07834
7	0.03510	-0.00631	-0.05453	-0.01718	0.01422	0.04307	-0.06203	0.02042	-0.20957	0.01386
8	0.02560	-0.02321	0.02784	-0.01427	-0.03318	-0.02330	0.00536	-0.02890	-0.05919	-0.00950
9	-0.69970	0.13547	-0.04231	-0.07749	0.00299	0.00346	-0.13335	-0.05610	-0.05760	0.00155
10	0.00817	-0.02526	-0.01319	-0.01123	-0.00080	0.01731	-0.00736	-0.00960	-0.00105	0.00026
11	0.01791	0.01032	0.78815	-0.00169	0.00518	0.00864	0.09913	0.00178	-0.00827	0.01301
12	0.00941	-0.01030	0.00066	0.04065	0.01586	0.01351	-0.01422	-0.02554	0.04109	-0.01405
13	-0.01229	-0.00791	-0.00491	0.00134	-0.03952	-0.06439	0.04163	0.02611	0.01163	-0.10342
14	-0.07359	-0.15525	-0.01568	-0.00622	0.00603	-0.02451	0.02782	0.01644	-0.13023	-0.02230
15	0.01902	-0.01465	0.00307	-0.00106	-0.01473	-0.01247	0.01150	-0.30236	-0.04019	0.01440
16	-0.06169	0.76948	0.04031	0.04604	-0.00924	-0.03625	0.05909	0.02144	-0.08391	-0.03015
17	0.11961	0.06057	-0.03253	-0.00067	0.04925	0.00788	0.00874	-0.23505	0.04535	0.04890
18	-0.02487	0.01950	-0.00613	0.03199	-0.05436	-0.02117	0.00260	0.01837	-0.71414	0.07150
19	0.03545	0.00811	-0.03408	0.01263	-0.01551	0.01172	-0.07091	-0.05855	0.01045	-0.00604
20	-0.04936	-0.00472	-0.04865	-0.00042	0.12101	0.01159	-0.12874	-0.01069	-0.06238	0.02073
21	0.59217	-0.17510	0.07529	0.18907	-0.03539	0.10385	-0.17399	-0.04452	-0.01969	0.02944
22	-0.07673	0.10977	-0.03767	0.11899	0.21664	0.15547	0.07938	-0.04036	-0.09770	0.22528
23	-0.07818	0.14252	0.03124	-0.01907	-0.00252	-0.15936	-0.43273	0.00478	-0.18705	0.21617
24	0.01173	0.01169	0.77668	-0.01565	-0.08149	-0.00237	-0.24301	0.05575	0.04048	-0.06016
25	-0.00288	-0.16258	0.00431	-0.02012	-0.08262	0.70382	-0.00730	0.02323	0.03931	-0.04993
26	0.15400	-0.02210	0.23560	-0.03178	0.02575	0.01124	0.29708	0.00283	0.03926	-0.00499
27	-0.18049	0.33244	0.09033	-0.10483	0.01607	0.01626	0.05476	-0.04182	-0.00306	-0.01745
28	0.07167	-0.13046	0.10175	0.04755	-0.03552	-0.04603	0.08872	-0.02133	-0.12986	-0.02020
29	-0.01804	-0.09935	-0.00365	0.03826	-0.05585	-0.05765	-0.18516	0.04909	-0.00848	-0.04078
30	0.00487	-0.06677	0.04160	0.02391	-0.12010	0.06103	0.11967	0.00885	-0.00497	0.00231
31	-0.04889	0.10119	-0.04039	-0.01607	0.16433	-0.05067	-0.00669	0.01824	0.01753	-0.08317
32	-0.01375	0.01727	-0.03279	-0.00754	0.03698	-0.00420	0.03084	-0.90614	-0.00784	-0.01878
33	0.00661	-0.02298	-0.02926	0.89139	-0.00343	-0.02037	-0.01368	0.00035	0.00956	0.00162
34	-0.04532	0.01623	-0.00363	-0.00207	0.74497	-0.01266	0.01567	0.00109	0.05346	0.36660
35	-0.02474	0.12159	-0.03620	0.03324	0.07395	-0.01303	-0.05664	0.01338	-0.43401	-0.04332
36	0.00130	0.00281	-0.02180	0.00746	-0.02961	-0.00378	-0.02105	-0.00625	0.05827	-0.00040
37	-0.07878	0.05209	-0.08519	-0.00213	0.00744	0.05641	0.10703	0.01402	0.01851	-0.05203
38	-0.00412	-0.08630	-0.06664	-0.03378	0.10348	-0.05730	0.03695	-0.04030	-0.02117	-0.05351
39	-0.01574	-0.03644	-0.05744	-0.01306	0.04015	0.02849	-0.00064	0.02197	-0.03721	-0.03112
40	0.04087	0.03904	0.00606	0.01193	0.06887	0.00338	-0.08782	-0.01956	-0.07215	0.05346
41	-0.00727	-0.02153	-0.00525	-0.03076	0.00016	0.02734	0.04541	0.00257	-0.09892	0.02617
42	0.07307	-0.17640	0.07354	0.03537	-0.18222	0.07968	-0.14715	-0.02853	0.05201	0.04159
43	-0.01738	0.10578	-0.06348	-0.00406	0.06064	0.05694	0.03493	0.01318	0.01249	-0.03154
44	0.12510	-0.07752	-0.05250	-0.00115	0.00019	-0.01608	0.02238	-0.02632	0.03134	-0.01906
45	0.13344	0.08730	0.06593	-0.00218	0.04031	0.00705	-0.05362	-0.01463	-0.06514	-0.01867
46	0.06711	-0.00247	-0.00080	-0.01657	-0.01580	-0.01429	-0.00395	-0.03238	-0.03458	0.02059
47	0.02129	-0.07236	0.09685	-0.02365	-0.03637	0.04960	-0.03133	0.01744	-0.00654	0.05277
48	0.01419	-0.02222	0.00131	-0.01054	0.00599	0.00409	-0.00927	-0.00810	-0.00083	-0.03914
49	0.04895	0.05545	-0.00270	-0.01818	-0.05633	-0.08389	0.14211	0.01827	0.47299	0.00989
50	-0.01005	0.05317	0.01876	0.00818	-0.00327	0.10550	-0.04122	-0.08136	-0.04344	-0.02039
51	-0.06218	-0.03864	0.03601	-0.00753	0.00263	-0.01904	-0.01029	-0.02743	0.14322	-0.00594
52	0.09227	-0.07568	0.06427	0.00502	0.04657	-0.23839	-0.05215	-0.00303	0.00013	-0.00272
53	-0.01001	-0.00509	0.07652	-0.01430	0.02407	0.02624	-0.00424	-0.00466	0.03631	0.01765
54	-0.02407	-0.00244	-0.00052	0.00968	-0.00844	0.01076	-0.01753	-0.00432	0.12623	-0.01866
55	-0.00030	0.01545	-0.06063	-0.01995	-0.00599	-0.00963	0.01673	-0.05939	-0.00271	-0.00523
56	-0.02054	0.00988	-0.04023	0.00312	0.01742	-0.00718	0.04310	0.00629	0.01107	0.02929
57	-0.01352	-0.09363	-0.00867	-0.01631	-0.01166	-0.06080	0.03766	0.01186	-0.08064	0.03983
58	0.01192	-0.03695	0.05552	-0.03233	0.13757	0.03323	-0.01604	-0.01174	0.13214	-0.69953
59	-0.00698	0.00045	-0.02169	-0.00380	0.10052	-0.05990	0.03027	0.01396	0.09110	0.02497
60	-0.07681	-0.10558	-0.04951	0.02329	0.04558	0.02086	0.21121	0.02094	-0.07866	-0.04507

K(4)

61	-0.16464	0.09774	0.15283	0.12925	0.12402	0.07930	0.01607	0.07871	-0.05083	0.15949
62	-0.01023	-0.01519	0.01276	0.00553	-0.02268	0.04294	0.00866	0.17604	-0.08446	0.09532
63	-0.13182	-0.04988	-0.33525	0.01390	0.20838	-0.00913	0.25573	0.00852	-0.11584	-0.02525
64	-0.16056	-0.02453	0.00152	-0.00894	-0.11050	0.02894	-0.02511	0.13053	0.04971	0.08899
65	-0.01773	-0.05495	0.06850	-0.06788	-0.11857	0.05154	-0.07168	0.03184	-0.06069	-0.01665
66	-0.02189	-0.00470	-0.03536	0.04697	0.25489	0.01295	0.73867	-0.05190	-0.10991	0.11673
67	-0.12206	0.06044	-0.11673	-0.01019	0.12659	-0.09912	0.12045	-0.11910	0.03262	-0.08311
68	0.06283	0.08980	-0.05394	-0.05378	0.20214	0.00085	-0.03863	-0.20258	0.01297	0.08591
69	-0.07651	0.12863	0.00945	-0.06707	-0.12727	-0.13994	0.07205	-0.01637	0.12852	-0.18837
70	-0.32115	0.34134	-0.10717	-0.20077	0.11497	-0.10468	0.24103	0.04522	0.00443	-0.04966
71	-0.07612	0.02228	0.60070	0.00385	-0.07197	-0.00356	-0.37096	0.06727	-0.14175	-0.02829
72	0.01744	-0.10532	-0.01619	0.06699	-0.03203	-0.28326	0.02382	0.03375	-0.02019	-0.08165
73	-0.04761	0.07121	-0.00503	-0.01881	0.03473	-0.04681	-0.12809	0.01433	0.01257	0.14492
74	-0.01921	-0.00241	0.00785	-0.02211	-0.04873	0.05930	-0.02949	0.01502	0.06110	-0.08608
75	0.14254	0.02203	0.11055	0.05819	-0.01911	0.12176	0.06697	-0.00732	-0.04755	0.01194
76	0.23729	-0.11905	-0.14305	-0.16696	0.01255	0.10452	0.03447	-0.04810	0.31225	-0.15681
77	0.07133	-0.02642	0.44243	-0.04571	-0.01053	-0.03147	-0.03301	0.03353	0.23651	-0.07044
78	-0.06751	-0.06426	-0.11735	-0.07454	0.00992	-0.09905	-0.68923	-0.00574	-0.06637	0.01101
79	-0.29900	-0.18810	-0.13092	-0.17037	0.01898	0.02363	0.06386	0.02389	0.15879	-0.12570
80	-0.11238	-0.04231	-0.04140	0.04926	0.05733	-0.02417	0.04821	-0.03969	0.07936	0.00897
81	0.29129	-0.09093	0.09331	-0.14278	-0.02391	-0.06022	-0.06550	0.05403	0.14265	-0.04247
82	0.15921	0.09429	0.02013	0.02703	-0.02267	0.02387	-0.20734	-0.13899	0.01927	0.05596
83	0.52487	0.02409	0.01652	-0.02896	0.00021	-0.05567	-0.01481	-0.00421	0.01765	0.00251
84	0.00567	-0.74431	0.03167	-0.00085	-0.07495	-0.00934	-0.08054	0.03240	0.07639	-0.06165
85	-0.32165	0.09146	0.16829	-0.03884	-0.00348	-0.10297	0.02107	0.09772	-0.06166	0.00298
86	0.06886	0.07349	0.02195	0.03296	-0.03409	0.01325	0.00249	0.03827	-0.02997	0.06217
87	0.11904	-0.00265	0.02044	0.72894	0.00192	0.04772	0.06386	0.01857	0.08155	0.00307
88	-0.28875	0.09555	-0.33487	-0.05489	0.02816	-0.01869	0.22732	0.01346	0.08678	-0.05178
89	0.25297	-0.33319	-0.13170	-0.05876	-0.06998	0.29406	-0.22393	0.00920	0.00356	0.02974
90	0.33323	-0.12628	0.04887	0.00332	-0.02690	0.03611	0.11234	0.00524	0.05447	-0.03841
91	0.03284	0.08637	-0.04868	-0.12653	-0.01216	0.02583	0.09826	-0.05121	0.14026	-0.02588
92	0.02883	0.01737	-0.00960	0.06080	-0.00828	-0.00006	-0.07456	-0.03235	-0.04181	0.00248
93	0.01153	-0.15664	0.29413	-0.00566	-0.01175	-0.01526	-0.74773	0.02130	-0.04964	-0.01551
94	-0.02802	-0.03322	-0.00298	0.00727	0.15090	-0.00328	0.00562	0.00268	0.01483	0.89487
95	-0.01411	0.00307	-0.03063	-0.00008	-0.00499	-0.02419	-0.00800	-0.83957	-0.04722	0.00941
96	-0.03973	-0.00926	-0.01386	0.90743	-0.00461	-0.01762	-0.03361	0.02288	-0.12613	-0.01166
97	0.01118	0.02644	-0.00112	-0.01635	0.01626	0.05466	-0.12992	0.01743	-0.13884	0.03462
98	-0.00627	0.03748	0.03423	0.01936	0.00198	0.81025	0.04552	-0.00361	0.01362	-0.00361
99	-0.00107	0.01936	-0.02804	-0.01929	0.88578	-0.00987	-0.00748	-0.00475	-0.01361	-0.07216
100	0.55836	0.09324	-0.01395	0.12043	-0.01104	0.00134	0.00321	-0.00436	-0.00371	0.01404
101	0.02951	0.00658	0.01425	-0.03490	-0.01612	-0.04699	0.01915	-0.11076	-0.12856	-0.00966
102	0.06776	0.08850	0.76801	-0.00140	0.01845	-0.00395	0.00983	-0.00583	-0.04555	0.01285
103	0.01752	0.01516	-0.02887	-0.00505	-0.04424	0.01310	-0.03364	-0.09989	0.01744	0.03453
104	-0.01207	-0.01273	0.00226	0.02821	-0.00211	-0.00813	0.01922	-0.03550	-0.02507	-0.00243
105	0.29480	0.09409	0.01596	-0.02482	-0.02338	0.01480	-0.14460	-0.01568	0.06744	0.00566
106	0.05485	-0.11458	0.10981	0.03682	-0.00413	-0.06215	0.06294	0.00581	0.51316	-0.01317
107	0.04016	0.02256	-0.02413	-0.00894	0.00211	0.02903	-0.00551	-0.00895	-0.00905	-0.00039
108	-0.02044	-0.01965	0.00322	-0.01833	-0.02863	-0.02744	-0.02110	0.01004	-0.00214	0.04596
109	-0.03300	0.03725	-0.03290	0.02787	-0.01748	0.06601	-0.03866	-0.14296	0.04308	0.02223
110	0.36171	-0.69859	-0.07566	-0.02403	-0.01998	0.17455	-0.09313	-0.00154	0.06105	0.00270
111	-0.13680	-0.26342	0.04596	-0.02676	0.00031	0.16834	0.09240	-0.03156	-0.16877	-0.05867
112	0.02746	0.04033	0.00765	-0.16969	-0.03559	-0.01083	-0.07657	0.05967	-0.28459	0.00150
113	0.00682	-0.00963	-0.00792	-0.00048	-0.06146	-0.04224	-0.05213	0.00247	-0.07533	0.17528
114	-0.00040	0.01961	0.01979	0.02092	0.07685	0.01229	-0.03310	-0.03558	-0.00097	-0.05066
115	0.04524	0.02038	-0.00156	0.00494	0.00022	-0.01925	0.02486	-0.19077	0.06497	-0.01249
116	-0.01532	-0.04280	-0.00067	0.01784	-0.01686	-0.04554	0.05480	0.04735	-0.12291	0.01577
117	0.01709	-0.01993	-0.00134	0.00535	0.01017	-0.00347	0.03496	0.03354	-0.04164	-0.02835
118	-0.00533	0.06398	-0.06922	-0.01920	-0.02915	0.08719	-0.04209	-0.05167	-0.03475	0.00258
119	-0.26602	0.03640	-0.21769	-0.20884	-0.01675	-0.15561	0.40232	0.06500	0.11113	-0.19145
120	0.02695	0.17150	-0.19028	0.02190	0.41441	-0.08201	0.09178	-0.17409	-0.15138	0.10851
121	0.11670	-0.10164	-0.19310	0.02092	-0.03578	0.05484	0.01006	-0.11532	0.12016	-0.00063
122	-0.00601	-0.13818	-0.04535	0.09783	0.05794	-0.05118	0.10400	0.02347	0.06537	0.01877
123	-0.03104	0.01033	-0.02974	-0.04140	0.01183	0.04747	0.02573	-0.28543	0.06801	-0.03534
124	-0.60685	0.22244	-0.02097	0.02567	0.01034	0.02041	0.10189	-0.02036	0.00275	0.07934
125	0.05043	0.03853	-0.00324	-0.00465	-0.04504	0.00187	-0.06178	-0.06247	0.02516	-0.03519
126	0.29069	0.03291	0.02056	0.02751	-0.02646	0.04861	0.16461	-0.02668	0.10061	-0.08483

K(4)

127	0.02227	0.10101	-0.10125	-0.02485	-0.04207	-0.03704	-0.01361	-0.01754	-0.06247	-0.07164
128	-0.01409	-0.13057	0.27357	-0.26436	0.03508	0.09307	-0.24693	-0.00590	0.19429	-0.14125
129	0.00495	0.05431	0.01977	0.00802	-0.03620	0.06513	-0.00636	0.39098	-0.07162	0.07717
130	0.03819	-0.42975	0.03569	0.28342	-0.06514	0.02202	0.05054	0.07150	-0.03171	-0.05204
131	-0.03042	-0.05374	-0.01091	0.05471	-0.10116	0.05737	0.06437	-0.05611	-0.17210	-0.03018
132	-0.00284	0.03160	0.13184	0.07329	-0.08903	0.12145	-0.00290	0.06586	0.01236	0.08193

	FACTOR									
VARIABLE	11	12	13	14	15	16	17	18	19	20
1	-0.04417	-0.10454	0.01163	-0.01131	-0.01770	0.09416	-0.04292	0.02519	0.00321	-0.02729
2	-0.03514	-0.00868	-0.02492	-0.08805	0.05495	0.07745	-0.11881	0.01616	0.00235	0.02205
3	-0.01520	-0.06018	0.02953	0.02367	-0.01437	-0.03079	0.02597	0.02911	0.00766	-0.02283
4	0.00353	-0.21894	0.03546	-0.03800	0.02816	0.05688	-0.04448	-0.47408	-0.02025	-0.11248
5	0.02153	0.00311	-0.00983	0.01511	-0.02133	0.05018	0.00494	0.02164	0.00773	-0.06719
6	-0.08576	-0.06788	-0.01137	0.03218	-0.01485	0.05134	0.07056	0.03068	0.01051	-0.04069
7	0.21418	-0.08985	0.02359	-0.04620	-0.06485	0.02230	0.11403	0.01715	-0.02727	-0.13521
8	-0.29360	-0.02312	-0.00507	0.03453	-0.08379	-0.75119	-0.24856	-0.00933	0.01124	-0.09311
9	-0.01336	0.03277	0.05483	-0.07123	-0.01362	-0.02947	0.09863	0.02039	0.01229	-0.05132
10	0.01038	-0.00640	0.00407	0.00746	0.00434	-0.00613	-0.00006	0.00091	0.82012	0.00484
11	-0.05280	0.05117	0.01329	-0.06479	0.03877	0.01365	0.01631	-0.01452	-0.01194	-0.08490
12	0.01308	0.03883	0.89394	0.02556	0.00265	-0.00315	-0.03557	0.05628	-0.00601	0.03832
13	-0.32077	-0.05419	0.01184	0.02636	-0.02457	0.36100	-0.44498	-0.01157	0.02726	-0.00456
14	-0.00953	0.09726	0.04610	-0.00988	-0.59190	-0.00148	-0.04827	-0.05060	-0.00460	-0.08649
15	0.01675	0.05825	-0.04012	0.06937	0.00028	0.00328	-0.04659	0.70163	-0.00046	-0.08636
16	0.05711	-0.01597	-0.01968	-0.01265	0.00162	0.04038	-0.05068	-0.00764	-0.00351	0.03738
17	-0.07469	0.50504	0.02721	-0.18571	0.07190	0.01512	0.05484	-0.00188	0.01178	0.16870
18	-0.06511	-0.02438	0.00078	-0.02745	0.01127	0.09041	-0.05408	-0.07209	0.01492	0.11928
19	-0.03266	0.03625	-0.02548	0.63719	0.03186	0.01057	0.04593	-0.01794	0.00807	-0.02678
20	0.04088	-0.02619	-0.00553	-0.03059	0.03773	0.00409	-0.12430	0.01853	-0.01032	0.00037
21	-0.02225	0.03341	0.03799	-0.15003	0.03443	0.06800	-0.05466	-0.03473	0.06459	-0.03058
22	0.13713	-0.15244	0.05022	-0.06403	0.10351	0.32706	0.24824	-0.01337	-0.02841	-0.28056
23	-0.03680	-0.02075	-0.03712	-0.14594	0.05505	0.35932	-0.13439	-0.08854	-0.02086	0.01725
24	-0.06968	0.02660	-0.03315	0.05858	0.09273	-0.03662	-0.05321	0.01551	-0.03268	0.01469
25	0.06764	0.06210	-0.01470	-0.03207	-0.01943	0.25470	-0.01129	0.02940	0.02564	0.03425
26	-0.01174	-0.03041	-0.01135	-0.17355	0.02800	-0.00075	-0.01768	-0.02983	-0.03597	-0.01817
27	-0.00705	0.06502	0.03434	-0.34488	0.02862	0.02921	0.03717	-0.03264	0.04323	-0.07628
28	-0.02592	-0.05427	0.05189	0.04082	-0.00081	-0.24081	0.01809	-0.02255	0.00074	-0.39171
29	0.01661	-0.06571	-0.00599	0.00902	0.00166	-0.02964	-0.01096	0.05265	0.01068	0.02024
30	-0.06807	0.04454	-0.02601	-0.03732	0.01621	0.02817	0.04288	0.02373	0.04462	0.24241
31	0.21321	0.00892	0.00843	-0.00746	0.00178	0.09403	0.06753	0.00672	-0.02796	0.05456
32	0.04087	0.05032	0.02070	0.00801	-0.05639	0.00260	-0.02362	0.07824	-0.01466	0.03192
33	0.02567	-0.03808	0.12043	0.00455	0.03737	-0.02701	-0.00571	0.02240	-0.01087	-0.00988
34	0.02354	0.02672	-0.01284	-0.01411	0.04628	0.00829	-0.07089	-0.00334	0.00776	-0.10050
35	-0.00720	-0.01553	-0.02675	-0.07607	-0.19895	-0.09482	-0.04443	0.00063	0.01729	0.00701
36	0.31038	0.01741	-0.02495	-0.00461	-0.00548	-0.01817	0.05358	0.02272	-0.00476	-0.02369
37	-0.03117	0.01279	-0.02355	0.00027	0.07226	-0.00793	0.26866	0.00894	-0.01492	-0.04104
38	-0.01138	-0.05500	0.02158	-0.01583	0.04521	-0.07623	-0.07992	0.01760	-0.00468	-0.11402
39	0.14279	0.01450	-0.00010	0.02433	0.01073	0.02352	-0.02152	0.03628	0.00181	-0.01187
40	0.02669	-0.65648	-0.02940	-0.03927	0.00541	0.15299	-0.03511	-0.09983	0.00564	0.01725
41	0.01729	-0.02305	0.01923	0.00932	-0.00238	-0.05204	0.21965	-0.02969	-0.00611	0.08485
42	0.06625	0.02702	-0.02362	-0.02447	0.10326	0.14659	-0.10553	-0.07236	0.03538	-0.10959
43	0.06764	0.00073	-0.00062	-0.04485	-0.04157	-0.03939	0.03907	0.02439	-0.00627	-0.08589
44	-0.00828	-0.03267	0.07919	0.20342	-0.01463	-0.02572	0.00416	-0.00703	0.01219	0.02019
45	0.00003	-0.01371	-0.02108	0.03652	0.40065	0.03348	0.02786	-0.05427	0.01376	0.03380
46	0.30812	0.01989	0.06664	0.02829	-0.06107	0.09881	-0.09007	-0.04706	0.01493	-0.06163
47	-0.01886	0.02433	-0.00196	0.06845	0.19210	0.03466	-0.24402	-0.00024	0.01291	-0.11589
48	0.02967	0.01763	-0.01506	-0.00334	-0.00923	0.05649	0.00964	0.02690	-0.00394	-0.07772
49	-0.00391	-0.00027	-0.03014	-0.04270	0.04159	-0.20296	-0.12748	0.03626	0.03332	0.13952
50	-0.04476	0.01756	-0.00549	-0.05971	0.03572	0.01797	0.03846	-0.05381	-0.01405	0.06597
51	-0.01063	0.00801	0.06089	-0.01349	0.35476	0.00689	0.03114	-0.01036	0.00937	0.03135
52	-0.36589	0.02052	0.02234	-0.03198	-0.05056	-0.00267	-0.12307	0.01849	0.01683	0.06488
53	-0.00359	-0.08245	-0.02427	-0.00853	-0.06457	-0.02559	0.11690	-0.00743	0.00953	-0.27259
54	0.12442	-0.02348	-0.01363	0.01648	-0.01435	0.06503	0.02915	-0.02292	0.01867	0.03203
55	0.01073	-0.06594	0.69062	-0.01564	0.01194	-0.00297	0.00707	-0.08662	-0.00559	-0.04456

K(4)

56	0.22521	0.01044	-0.01514	-0.08415	0.00207	0.02537	0.05549	0.04822	-0.00796	0.01469
57	0.14674	0.04509	0.00524	-0.01184	0.02415	0.02881	-0.06249	0.01286	0.01204	0.23129
58	0.03951	0.01223	0.02555	0.01436	-0.03204	-0.02738	-0.19271	0.00259	0.00764	-0.02416
59	0.14358	0.06890	0.00130	-0.00670	0.01920	0.13909	0.40294	0.01347	0.00283	0.01920
60	0.05346	-0.02616	0.05348	0.09294	-0.25843	-0.13411	0.03661	0.02439	-0.03232	-0.10249
61	0.13299	-0.04571	-0.02257	0.00812	-0.06320	0.01116	0.45818	0.08368	0.01443	-0.29772
62	-0.22344	0.25614	-0.08444	-0.08415	0.13234	0.04355	-0.06485	-0.01883	-0.01045	-0.05296
63	0.12312	0.02005	0.00292	0.07657	-0.24096	-0.06165	0.02485	0.00741	-0.03556	0.01686
64	-0.04364	0.05772	-0.06487	-0.06269	0.06931	0.03512	0.03069	0.01330	0.01349	0.54442
65	-0.06733	0.04800	-0.04315	-0.05872	-0.02403	0.02458	0.03227	-0.03512	0.01083	-0.04456
66	0.03072	-0.20697	0.03806	-0.05807	0.07596	0.02465	0.06118	0.02168	0.00049	-0.11739
67	0.19962	-0.01127	0.06411	-0.01456	-0.06643	-0.02634	0.08201	0.04824	-0.05299	0.18565
68	0.16175	-0.04806	-0.00660	0.01967	-0.15483	0.04283	-0.10021	-0.09273	-0.03886	-0.07329
69	-0.06348	0.02195	0.03374	-0.04492	0.06075	-0.08553	-0.10034	0.04446	0.03397	0.00351
70	0.05602	0.03375	0.00288	-0.09243	-0.02024	-0.03307	0.19113	0.02696	-0.00912	-0.10470
71	-0.03874	0.07024	-0.01612	0.24583	0.07201	-0.03532	-0.05650	-0.01231	-0.00098	-0.11813
72	-0.06507	0.03167	0.01082	0.04753	-0.01036	-0.75364	-0.00661	0.09013	0.02798	0.04015
73	-0.00563	-0.00956	-0.02832	-0.02798	-0.03452	0.03472	-0.06434	-0.02328	-0.02831	-0.04990
74	0.00516	0.61901	-0.00812	0.00938	0.00838	0.00864	0.00572	-0.02516	-0.02564	0.08525
75	-0.02270	-0.02894	-0.00136	-0.06879	0.05340	0.03202	-0.01478	-0.00916	0.05055	-0.05964
76	0.05043	0.16514	0.03080	0.11831	-0.04547	-0.05934	-0.00784	0.01464	-0.01029	-0.03237
77	-0.04208	-0.06643	-0.00988	0.05181	-0.01229	-0.02994	-0.01588	0.00298	-0.00801	-0.05763
78	0.00886	-0.05184	-0.00067	-0.12919	-0.00363	0.14797	-0.06013	-0.01247	-0.01539	0.02597
79	0.06053	-0.02298	0.03156	0.33013	-0.11654	-0.11695	-0.01456	0.09703	-0.03359	-0.09792
80	0.04255	-0.02374	-0.03647	0.03858	-0.13731	0.01925	0.10672	0.01576	-0.00407	0.10211
81	-0.01294	-0.10908	-0.03011	-0.07870	-0.00079	-0.03770	0.00165	0.03485	0.35031	-0.21395
82	-0.01508	-0.06155	0.02200	0.12172	-0.10952	0.07028	-0.00972	-0.00782	0.01109	0.10730
83	0.02342	0.00786	0.01210	0.03672	0.07664	-0.00107	-0.02094	0.03572	0.01221	-0.04201
84	-0.03097	-0.10563	-0.00446	0.15054	-0.10923	-0.10991	-0.09482	0.04795	0.02465	-0.12002
85	-0.00536	-0.02085	-0.08204	0.14607	-0.08819	-0.01465	0.15973	0.03828	-0.01547	-0.01943
86	-0.04714	0.02539	-0.00819	0.23850	-0.00806	-0.01002	-0.00983	0.00904	0.00572	0.03324
87	0.00407	0.01928	-0.11482	0.11641	-0.04141	0.02464	-0.05166	0.00328	-0.01961	0.02258
88	0.01872	0.07745	0.02379	0.05095	-0.10373	-0.11386	0.06378	0.05323	0.04481	0.16666
89	-0.04526	0.11458	0.00074	-0.07528	0.06823	0.04483	-0.01514	-0.00325	-0.06112	0.10362
90	-0.02822	0.03665	-0.00759	-0.09724	-0.03594	-0.00543	-0.03539	-0.06349	0.23985	-0.00936
91	-0.02818	0.02473	0.04013	0.01042	0.04537	-0.06012	0.06043	0.08097	-0.03019	0.05430
92	-0.00188	0.01805	-0.03380	-0.35058	-0.00165	0.17700	-0.08383	-0.06167	0.02453	0.04653
93	0.00379	-0.00491	0.01215	0.24198	0.02119	-0.07685	-0.04966	-0.00017	-0.00987	-0.08041
94	0.06877	-0.03857	-0.00758	0.01976	-0.00240	-0.03991	0.02116	0.01271	-0.00001	0.04158
95	-0.01448	0.05616	0.01142	-0.02611	0.01946	-0.01141	-0.00300	0.11900	-0.01019	-0.03446
96	-0.01329	-0.00568	0.01604	-0.14282	0.00782	-0.02878	0.02980	-0.01663	-0.00666	-0.02959
97	-0.04349	-0.04127	0.00917	-0.06067	0.01017	0.86132	-0.05434	0.04511	-0.00363	0.07018
98	0.00604	0.02056	0.01469	0.02321	0.02226	0.01155	0.01299	-0.01278	0.04725	-0.00737
99	-0.03255	-0.01856	0.01100	-0.02649	0.05675	0.01781	0.05739	-0.01396	0.00468	-0.07331
100	-0.01768	0.01852	-0.02772	0.41764	0.01539	0.00380	-0.02313	0.01740	0.02791	0.02542
101	-0.00185	-0.02241	0.03344	-0.00280	0.00624	0.00515	-0.03208	-0.65610	-0.00444	0.02108
102	-0.01115	0.01362	-0.03155	-0.17565	0.02684	0.01274	-0.02003	0.00980	0.00594	-0.04825
103	-0.02221	-0.53209	0.03472	-0.03156	0.03173	-0.03644	-0.00917	-0.03275	-0.01392	-0.01748
104	-0.01920	-0.00003	0.75019	0.01102	0.00263	-0.00001	-0.00515	-0.01013	0.00404	0.01645
105	0.00485	0.11234	0.00216	-0.27058	-0.00807	-0.06122	0.01990	0.00374	-0.00396	0.13675
106	0.01132	0.01191	0.02777	-0.03548	0.44422	0.10992	-0.06503	-0.06282	-0.00996	0.00456
107	-0.01863	-0.03228	-0.00796	-0.00594	0.02752	-0.01362	-0.02278	0.01278	0.67604	0.01592
108	-0.89127	0.03870	-0.00880	0.00387	0.00076	-0.07614	-0.03732	0.02617	0.00099	-0.04825
109	-0.02535	0.03548	-0.06527	-0.04098	0.00952	0.07884	-0.02257	-0.22034	-0.00591	-0.09018
110	-0.02254	0.03194	0.02289	-0.22145	-0.04398	0.00260	-0.01529	-0.02974	0.00595	0.01572
111	0.05755	-0.01643	-0.02772	0.15949	-0.14856	-0.00216	0.01268	0.04451	-0.01751	-0.10861
112	-0.01041	-0.00398	-0.00271	-0.34121	0.11776	-0.08313	0.08378	-0.06069	-0.02839	0.00339
113	-0.02168	-0.03303	-0.01007	-0.05613	0.06529	0.11440	-0.07326	-0.04367	-0.00307	-0.01075
114	-0.01960	-0.01055	0.00054	-0.06549	-0.07377	-0.07340	-0.74890	0.01260	0.01134	0.02517
115	-0.01535	0.01116	-0.06011	0.03479	-0.03518	0.04831	0.00250	0.00793	-0.00894	-0.01550
116	-0.00874	-0.01059	0.06421	0.12064	-0.22282	0.02156	-0.02513	-0.10103	0.02457	-0.01179
117	-0.00208	-0.21909	0.03086	-0.01088	-0.02603	-0.00527	-0.07565	0.02115	-0.00796	-0.10646
118	0.11366	0.01545	0.02965	-0.06285	0.02458	-0.00876	0.03797	0.01546	-0.02080	-0.03142
119	-0.00267	0.07218	-0.00888	0.11626	-0.04215	-0.25752	0.05834	0.05361	-0.07376	-0.03387
120	0.25743	-0.03490	0.04707	-0.04603	-0.25270	0.01268	0.14439	0.02541	-0.06094	0.05288
121	0.03991	0.06330	0.03729	-0.12966	0.08349	0.06030	-0.33072	-0.00931	-0.00532	0.18209

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K(4)  122   -0.08680   -0.29696   -0.00078    0.04897   -0.02484   -0.02131    0.02483   -0.01132    0.05280   -0.04250
      123    0.00755   -0.10816    0.07057    0.04910    0.00308   -0.05829   -0.03962    0.04134    0.03998    0.02271
      124   -0.00277    0.08564   -0.02548   -0.12684   -0.01229    0.11163    0.03719   -0.01689    0.06624    0.15069
      125    0.02049   -0.11333   -0.02940    0.04155   -0.52974    0.01414   -0.07096   -0.03461    0.00448   -0.00528
      126   -0.02986    0.03710   -0.02918   -0.13588   -0.01107    0.00974    0.02095   -0.07409    0.09571    0.07450
      127   -0.05981    0.00443    0.04929   -0.00502    0.02595   -0.03450    0.03358   -0.07256    0.01087    0.55201
      128   -0.01395    0.14546   -0.05202   -0.07368   -0.02063   -0.05337    0.03849    0.06732    0.01476    0.02121
      129   -0.09012    0.10302   -0.17916   -0.05953   -0.10633   -0.01036    0.06033    0.07648    0.00888    0.08013
      130    0.01816    0.08457   -0.00895    0.25599   -0.11987   -0.10185   -0.04026    0.01597    0.03104    0.00679
      131   -0.03189   -0.16474    0.04966   -0.02066   -0.07905    0.02030   -0.15169   -0.00202   -0.01181   -0.11855
      132   -0.01158    0.02611    0.00047   -0.06465    0.08074    0.03779   -0.02768   -0.01219    0.04361    0.02844

                      FACTOR
                21         22         23         24         25         26         27         28
VARIABLE
         1    0.04383   -0.01977   -0.02326    0.03337    0.05661    0.03354   -0.03160    0.00298
         2   -0.02510   -0.02682   -0.21174    0.02770   -0.01952   -0.00243   -0.04563    0.10129
         3    0.01199    0.00692   -0.03053   -0.04230    0.04502    0.02109   -0.00969   -0.01199
         4   -0.02469    0.01128   -0.07333    0.00785   -0.02267   -0.05244   -0.02014    0.11432
         5    0.01162   -0.01619   -0.04186    0.01769    0.06101   -0.02738   -0.05759    0.00800
         6    0.07376    0.20418   -0.03785    0.10833   -0.00838   -0.07178    0.09448    0.02998
         7    0.10470   -0.05010    0.02783    0.04020   -0.03821    0.05915    0.49531   -0.04298
         8    0.00214    0.01509    0.01181    0.13838   -0.00043   -0.03209   -0.03247    0.00627
         9   -0.11856   -0.03679    0.12534    0.05898   -0.29571    0.05646   -0.00988   -0.14423
        10   -0.00451   -0.00689    0.02453   -0.00824    0.06578   -0.01319    0.00320    0.01837
        11    0.06869   -0.04331   -0.05636   -0.00434    0.09447    0.04637    0.00789    0.00551
        12    0.00160    0.01195    0.02264    0.02109    0.01360    0.00586   -0.01901    0.04498
        13    0.04502    0.02174    0.02649    0.03554    0.01470    0.04795    0.06375   -0.15674
        14   -0.06561   -0.04900   -0.17308   -0.10996    0.03744   -0.03570   -0.01624   -0.03467
        15   -0.05142    0.05137   -0.01313    0.06913   -0.03046   -0.01919    0.00927    0.05396
        16   -0.02805   -0.04414   -0.03626    0.02150    0.19413   -0.20745    0.00576    0.09527
        17    0.11248   -0.06074   -0.16948   -0.09648    0.01329    0.05118    0.08226   -0.28262
        18    0.05928   -0.00028    0.03213   -0.00916   -0.01119    0.05184   -0.02342   -0.00542
        19   -0.01004   -0.04069   -0.05350   -0.03739    0.07010    0.16575    0.06811   -0.01245
        20   -0.11722   -0.11530    0.12914   -0.46852    0.13786   -0.14733    0.00413    0.04212
        21    0.05482    0.03296   -0.35549   -0.13261    0.26405    0.11979    0.05806    0.22986
        22   -0.24907    0.14624   -0.06145   -0.07108    0.00395    0.03631    0.21034   -0.05516
        23    0.12685   -0.13907   -0.02596    0.05720    0.23990   -0.12698   -0.08918   -0.14238
        24   -0.21220   -0.01611   -0.01026   -0.09331   -0.09394   -0.01075    0.03716   -0.00099
        25    0.11281   -0.04489    0.06763    0.03992    0.02244   -0.01149    0.05578   -0.00967
        26    0.00955   -0.02729    0.08196    0.07868    0.31599   -0.05218   -0.02947   -0.07004
        27    0.12055   -0.02306    0.06765    0.05798   -0.04515    0.12791    0.02634    0.06243
        28    0.13091    0.01781    0.04073    0.17325    0.03722    0.03288   -0.08223   -0.06260
        29   -0.38599   -0.00614    0.00718   -0.06049    0.01400   -0.02623   -0.05416    0.06648
        30   -0.09731   -0.03581    0.20156    0.15435    0.04644   -0.00324    0.05222   -0.08435
        31   -0.09679    0.10843    0.10419   -0.01186    0.01120   -0.11572    0.28623    0.12751
        32    0.02642    0.06867   -0.01630    0.02250    0.00157    0.00990   -0.05666   -0.01670
        33   -0.00496    0.01415    0.01272    0.03626    0.00530   -0.00906   -0.00617    0.04590
        34   -0.02517   -0.02016   -0.02576   -0.05043    0.00656    0.04387    0.00673   -0.02998
        35    0.02797    0.05545   -0.00065   -0.01889    0.02944   -0.07113   -0.00874   -0.03363
        36   -0.00658   -0.00347   -0.01321   -0.00094   -0.01295    0.07135   -0.00025    0.00030
        37   -0.02284   -0.00021    0.02703    0.07207    0.00646   -0.01579    0.03662   -0.03817
        38    0.04125    0.64292    0.02533   -0.01362   -0.04708    0.03326   -0.08276    0.00569
        39    0.06904   -0.05012   -0.02078    0.01908   -0.01451   -0.06858    0.15837   -0.05339
        40    0.07566    0.07528   -0.02165   -0.00441    0.02307    0.08814    0.06618   -0.02036
        41    0.09938   -0.01152   -0.01342    0.12417   -0.03270    0.01097    0.09940    0.03834
        42   -0.00268    0.02426   -0.10104   -0.37665    0.00572    0.01385   -0.05590   -0.05961
        43    0.02598   -0.04267    0.01563    0.04761   -0.01345   -0.03286    0.25578    0.05148
        44    0.08257   -0.01144    0.10605   -0.03527    0.15639    0.09304    0.03903    0.06360
        45   -0.00038   -0.00068    0.06501    0.00593   -0.07450   -0.05898   -0.06602    0.01669
        46   -0.00735   -0.00194   -0.02653    0.01342   -0.06451    0.07000   -0.10394    0.04574
        47   -0.00248    0.00743   -0.20548    0.31178    0.06046   -0.16847    0.01026   -0.00680
        48    0.09033   -0.02137    0.00180   -0.01621    0.02511    0.02077    0.02566    0.01801
        49    0.11234    0.06442    0.09304   -0.00589    0.02196   -0.10304   -0.07576   -0.07149
        50   -0.02687    0.07509   -0.05223   -0.02580   -0.01417   -0.24857    0.03460    0.01293
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K(4)	51	-0.04518	0.01466	-0.03172	-0.03543	0.09218	0.07699	-0.03959	-0.09571
	52	-0.07328	-0.02120	-0.06906	0.04451	-0.06099	0.05859	-0.04716	0.08065
	53	-0.02007	0.17691	0.01309	0.05734	-0.00629	-0.03352	0.01184	0.04974
	54	-0.01067	0.01654	-0.05716	0.08579	0.00174	0.08932	-0.09060	0.00769
	55	0.01961	-0.04554	-0.03574	-0.13706	-0.05838	-0.01661	0.01285	-0.06931
	56	-0.01680	0.00779	0.04379	-0.08771	0.00898	-0.01801	0.15317	0.00677
	57	-0.03881	-0.03987	0.00207	-0.08378	-0.02316	0.14095	-0.02228	-0.10117
	58	-0.07014	-0.04831	-0.07696	0.08986	-0.00727	0.04842	-0.05320	0.05784
	59	0.02149	0.01774	0.00669	-0.03088	-0.00353	-0.01241	-0.09139	-0.08343
	60	-0.06448	-0.01861	0.05986	0.11201	-0.00880	0.04652	-0.07356	-0.18515
	61	-0.16775	-0.02736	0.19898	-0.00288	0.02975	-0.12721	0.13641	-0.14849
	62	-0.16605	-0.03478	-0.08129	-0.01897	-0.06897	-0.17453	-0.01703	-0.05412
	63	-0.17243	-0.16150	0.03079	0.11394	0.01085	0.08312	0.09444	0.00702
	64	-0.11208	-0.13661	-0.01707	-0.00070	-0.00246	-0.19845	-0.00645	0.00466
	65	-0.10913	0.03242	-0.13305	0.11235	0.00629	-0.08210	-0.04667	-0.07244
	66	-0.03807	0.66348	0.00220	0.10762	0.08091	-0.10427	0.04987	0.03355
	67	-0.18675	0.07832	0.09139	-0.04539	-0.00988	0.16346	-0.10082	-0.04714
	68	-0.02264	0.03080	0.03887	-0.18444	-0.10606	0.28836	0.00193	-0.03594
	69	-0.36679	0.01919	0.04889	-0.04531	-0.02147	0.05273	-0.01323	-0.04223
	70	-0.11183	-0.06750	0.27186	0.24570	-0.15258	-0.02057	0.00648	-0.35096
	71	-0.11360	-0.03320	-0.02334	0.10153	-0.12569	0.16669	-0.00438	-0.03145
	72	-0.02906	-0.00858	-0.04325	-0.02402	0.00369	0.05296	0.03541	-0.08596
	73	-0.00170	-0.03886	-0.01703	0.16712	0.23745	-0.06511	-0.08457	0.00565
	74	0.12560	-0.15323	0.04760	0.00767	0.02403	0.01168	0.03855	-0.05921
	75	-0.03436	-0.03661	0.02012	-0.02600	0.40855	-0.02857	-0.04405	-0.03971
	76	-0.12390	0.00594	-0.04431	0.06728	-0.05392	0.08191	0.03798	-0.06157
	77	0.04086	-0.01805	0.17494	0.10569	0.03999	-0.20242	-0.08511	-0.08052
	78	-0.14405	-0.08811	-0.01441	-0.14062	-0.00279	-0.15326	0.01042	-0.15451
	79	-0.26486	0.06547	0.19269	0.01823	-0.13651	-0.03618	-0.04382	0.07846
	80	0.05046	0.06935	0.02550	0.05696	0.07818	-0.04363	-0.01844	-0.03481
	81	0.03505	0.02541	-0.03528	0.09412	-0.12299	0.00010	-0.12281	0.16637
	82	-0.01648	0.00626	-0.77764	-0.12695	-0.00095	-0.00493	0.00983	0.06407
	83	0.03773	-0.03537	-0.01173	0.01501	0.00808	-0.01698	-0.00520	-0.08081
	84	-0.00240	-0.02678	-0.00301	-0.08799	-0.06079	-0.03859	-0.06938	0.10310
	85	-0.26968	0.03251	0.15419	0.17096	-0.07879	0.08508	-0.04639	-0.00006
	86	0.06142	0.01579	0.02402	-0.08800	0.65315	0.02698	0.01456	0.06140
	87	-0.00542	-0.04320	0.05530	-0.00699	0.02963	-0.05647	0.04700	0.03998
	88	-0.18827	0.02944	-0.01029	-0.03517	-0.02550	-0.01497	0.11439	-0.26936
	89	-0.02108	0.13783	0.06854	0.06714	0.05647	0.12381	0.11124	-0.07075
	90	-0.11534	-0.00649	-0.02306	-0.02176	0.17133	-0.04032	0.06147	-0.06588
	91	-0.05027	0.03189	0.01465	-0.01189	-0.05748	-0.09542	0.12990	-0.21496
	92	-0.01703	-0.00326	0.01001	-0.05066	0.02095	0.03837	0.09842	0.01967
	93	-0.07549	-0.02663	-0.07626	-0.00383	-0.19894	0.05250	-0.04703	0.05233
	94	-0.04177	-0.02503	-0.02166	-0.00587	0.01269	0.02226	-0.08708	0.06155
	95	0.01308	0.00195	-0.06745	-0.08510	-0.01912	-0.02253	0.00020	-0.01476
	96	0.00507	0.02450	-0.00384	-0.02758	0.01446	0.03040	-0.03581	-0.01670
	97	0.11049	-0.01951	-0.04175	0.01540	0.02490	0.00314	-0.02205	-0.02845
	98	0.04696	-0.04203	0.01800	-0.06261	0.02554	-0.02937	-0.01672	0.01848
	99	0.06341	0.09328	-0.03256	-0.06821	-0.02669	0.03574	0.06539	-0.02769
	100	0.05535	0.02970	-0.21278	-0.08704	0.46962	0.04897	0.03800	0.07005
	101	0.04884	0.03880	-0.00276	-0.01743	0.01245	-0.03334	-0.07667	0.00647
	102	0.02682	-0.02601	0.03573	0.04293	0.20185	-0.04234	-0.04413	0.08643
	103	0.02994	-0.03823	-0.02522	-0.04574	0.01125	-0.00148	0.02397	-0.05936
	104	-0.01455	0.03622	-0.00503	0.07778	0.01391	0.01196	-0.01819	0.02238
	105	0.12447	-0.00510	-0.49571	0.12217	-0.12429	0.03315	0.00689	-0.09109
	106	-0.02753	-0.15393	-0.00429	-0.20203	0.00469	0.27526	-0.25608	-0.04849
	107	-0.00189	-0.00365	0.00008	-0.00185	-0.01840	0.02071	-0.02057	0.00157
	108	-0.01814	0.01026	0.02938	-0.00331	0.03360	0.05698	-0.14366	0.01311
	109	-0.08539	-0.13759	-0.03437	0.03640	0.02702	-0.03555	0.10546	0.13242
	110	0.00100	0.07254	0.04779	-0.04017	0.00348	-0.04849	0.07633	0.07755
	111	-0.14877	0.07240	-0.15933	0.14971	0.00099	0.43848	-0.09579	-0.09342
	112	0.01445	-0.02466	-0.01519	-0.18156	0.15155	0.06424	-0.02791	-0.00758
	113	0.07013	0.02379	-0.02805	0.10730	0.06689	0.04118	0.06167	-0.16294
	114	-0.02299	0.02737	0.06240	-0.01105	0.03900	-0.00471	-0.06931	-0.01068
	115	-0.04120	0.27687	-0.00087	0.08428	-0.06136	-0.01826	-0.05967	0.02790
	116	0.01858	-0.13303	-0.18754	-0.41785	-0.09548	0.03692	-0.16035	-0.04121

K(4)	117	-0.07496	0.10038	-0.25661	0.02542	0.01635	-0.09120	0.00026	0.45513
	118	0.00901	0.03275	-0.01643	-0.01303	-0.00877	-0.00018	-0.30337	0.07228
	119	-0.11570	-0.06349	0.41282	0.22382	-0.21183	0.03462	-0.12058	-0.20017
	120	-0.00754	0.20733	0.13862	-0.05081	-0.03398	0.08215	0.18079	0.11259
	121	0.09079	-0.02522	-0.02593	-0.29630	0.01963	0.04903	0.00374	0.02264
	122	-0.01805	-0.00524	0.00439	0.04311	-0.01938	-0.01543	0.02870	0.16442
	123	0.11353	0.06495	-0.05889	0.04768	0.03122	-0.03723	0.00794	-0.08402
	124	0.07507	-0.03375	-0.04368	-0.04643	0.07767	0.02495	0.11417	0.01080
	125	0.04069	-0.02799	0.00588	-0.01455	-0.06494	0.27804	-0.01903	0.01793
	126	-0.01604	-0.01154	0.01735	0.10883	0.33230	0.05298	0.10797	-0.09997
	127	0.09771	-0.01020	-0.06150	0.12130	-0.00698	-0.03666	-0.10501	-0.00486
	128	0.09895	-0.00272	0.03460	0.07703	-0.00276	0.12955	0.02098	0.02012
	129	0.00539	-0.26036	-0.02392	0.07661	0.00599	-0.17951	0.18350	0.04985
	130	0.14336	-0.03378	0.07750	0.10598	0.19246	0.04024	-0.08927	0.20114
	131	0.26926	0.14695	0.04136	0.01673	-0.01484	-0.08828	-0.19304	-0.03825
	132	-0.00718	0.07883	0.45244	-0.09734	0.02363	0.01764	0.11724	-0.10715

APPENDIX L

COEFFICIENTS OF CONGRUENCE FOR 28 ORTHOGONALLY ROTATED HIGHER-ORDER OAI FACTORS

(1) Table 78. Coefficients of Congruence Between the Total Sample (N = 1414 Jobs) and Subsample A (N = 707 Jobs) for 28 Orthogonally Rotated Higher-Order OAI Factors

(2) Table 79. Coefficients of Congruence Between the Total Sample (N = 1414 Jobs) and Subsample B (N = 707 Jobs) for 28 Orthogonally Rotated Higher-Order OAI Factors

(3) Table 80. Coefficients of Congruence Between the Two Subsamples for 28 Orthogonally Rotated Higher-Order OAI Factors (N = 707 Jobs Per Subsample)

L (1)

MATRIX OF COEFFICIENTS OF CONGRUENCE

A MATRIX

Subsample A

Total Sample

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-0.873	-0.003	-0.045	0.188	0.059	0.103	0.085	0.064	-0.061	0.152	0.026	0.001	0.006	-0.438	0.368	0.026
2	0.192	0.119	-0.064	-0.198	-0.062	0.044	-0.157	-0.125	0.088	-0.134	0.040	-0.144	-0.002	-0.091	-0.969	-0.046
3	-0.114	0.027	0.083	0.313	-0.005	0.986	0.060	0.105	-0.020	0.024	-0.046	0.162	-0.060	-0.098	-0.023	-0.128
4	-0.179	0.028	0.020	0.019	0.984	0.010	0.019	0.001	0.086	-0.084	0.082	0.009	0.082	-0.031	0.041	0.027
5	0.072	0.051	-0.111	-0.082	-0.011	-0.123	-0.049	-0.981	0.147	-0.091	0.112	-0.228	0.012	0.054	-0.126	0.042
6	-0.100	0.216	-0.007	-0.008	0.016	0.048	0.977	0.062	-0.012	0.049	-0.051	-0.019	-0.025	-0.079	0.161	0.041
7	0.065	-0.208	-0.014	-0.476	0.017	-0.254	0.009	-0.070	-0.091	0.103	-0.048	-0.128	0.035	0.235	-0.184	-0.094
8	0.037	-0.032	0.981	0.012	0.010	0.089	-0.003	0.087	0.023	-0.038	-0.066	0.107	-0.121	0.107	0.040	-0.142
9	-0.038	-0.172	0.012	-0.146	-0.084	-0.013	-0.025	0.094	-0.138	0.094	-0.169	-0.047	0.006	0.028	0.119	0.063
10	-0.042	0.164	0.004	0.062	0.061	-0.018	0.012	-0.128	0.976	-0.083	0.124	-0.012	-0.044	-0.106	-0.061	0.070
11	0.058	0.129	-0.101	-0.073	0.004	-0.151	0.123	-0.108	0.009	0.069	0.045	-0.928	0.040	0.077	-0.082	0.111
12	0.006	-0.066	0.074	-0.044	-0.090	0.032	0.059	0.126	-0.115	0.084	-0.960	0.033	-0.070	-0.143	-0.025	0.026
13	0.018	-0.031	-0.129	-0.030	0.066	-0.074	-0.015	-0.028	-0.031	0.054	0.062	-0.045	0.963	-0.017	-0.002	0.070
14	-0.251	-0.252	0.015	0.076	0.082	-0.065	-0.063	0.018	-0.043	0.217	-0.018	0.027	0.040	0.716	0.098	-0.154
15	-0.092	0.155	0.062	0.112	0.005	0.213	0.015	0.046	0.067	0.236	-0.033	0.109	0.013	-0.209	-0.081	0.038
16	-0.050	0.980	-0.034	0.162	0.018	0.042	0.247	-0.082	0.157	-0.024	0.091	-0.144	-0.037	-0.186	-0.112	0.135
17	0.161	-0.024	0.059	-0.202	-0.025	-0.050	0.081	-0.167	0.062	0.033	-0.036	-0.335	-0.031	0.088	-0.180	-0.076
18	0.050	-0.135	0.047	-0.040	0.025	-0.008	-0.002	-0.040	-0.012	0.016	-0.145	-0.076	-0.083	0.147	0.026	-0.144
19	-0.109	-0.006	0.014	-0.023	0.012	0.019	0.051	0.023	-0.011	0.007	0.012	0.054	-0.004	-0.059	0.065	0.010
20	-0.034	0.081	0.092	-0.037	-0.052	-0.200	-0.105	0.174	-0.046	-0.023	-0.248	-0.032	0.001	-0.228	-0.092	0.138
21	-0.267	0.138	-0.047	-0.015	0.049	0.016	0.123	0.014	0.074	-0.093	0.023	0.070	0.052	-0.407	0.060	-0.076
22	-0.024	-0.060	-0.249	-0.053	0.017	-0.080	0.004	-0.336	-0.019	-0.069	0.296	-0.092	0.070	0.037	0.047	-0.120
23	0.341	-0.114	0.170	-0.427	-0.044	0.000	-0.020	-0.003	-0.054	-0.090	-0.039	-0.133	-0.040	0.526	-0.013	-0.108
24	0.157	-0.152	0.078	-0.173	-0.093	0.060	0.011	-0.012	-0.109	-0.003	-0.029	0.093	-0.065	0.117	-0.099	-0.940
25	-0.689	0.160	0.037	-0.084	0.144	0.152	0.168	0.061	0.217	-0.150	-0.014	0.026	-0.054	-0.093	-0.090	0.005
26	-0.055	-0.034	-0.089	0.009	-0.039	-0.053	-0.048	0.003	-0.107	0.073	-0.039	-0.006	0.043	-0.064	0.105	0.153
27	-0.058	0.113	0.031	-0.055	0.018	-0.086	0.099	-0.234	0.011	-0.134	0.020	-0.247	-0.118	-0.051	-0.082	-0.009
28	-0.293	0.020	-0.000	0.210	0.169	0.127	0.139	-0.053	0.011	-0.057	0.172	-0.017	-0.016	0.006	0.223	-0.075

Subsample A

Total Sample

	17	18	19	20	21	22	23	24	25	26	27	28
1	-0.105	0.173	-0.006	0.054	0.035	-0.126	0.019	-0.095	0.202	-0.214	-0.016	0.033
2	0.111	-0.132	-0.023	0.034	-0.105	-0.210	0.059	0.073	-0.109	-0.071	0.152	-0.066
3	-0.152	0.033	-0.004	-0.060	0.010	0.053	0.126	-0.014	0.033	-0.039	-0.127	-0.056
4	0.000	-0.002	-0.008	0.065	0.022	0.021	0.008	-0.041	0.135	-0.005	-0.015	0.029
5	-0.109	-0.104	0.030	0.082	-0.041	0.019	-0.050	0.047	0.006	0.060	0.092	0.229
6	-0.032	-0.075	-0.001	-0.126	0.055	0.070	0.056	-0.123	0.030	-0.098	0.135	-0.039
7	0.027	-0.154	0.080	0.044	0.028	0.040	-0.054	-0.082	-0.196	0.059	0.010	0.001
8	0.061	-0.082	0.121	-0.098	0.029	-0.063	7.068	0.065	-0.118	0.124	-0.003	-0.260
9	-0.115	0.097	0.132	0.189	0.027	-0.272	0.298	0.072	0.093	0.072	-0.197	-0.051
10	-0.027	-0.078	-0.049	-0.070	-0.024	-0.044	0.069	-0.057	0.043	-0.037	-0.007	-0.008
11	-0.081	-0.206	0.032	0.007	-0.075	0.078	-0.069	-0.015	-0.047	-0.164	0.258	0.025
12	0.174	-0.028	0.116	-0.085	-0.037	0.042	0.062	0.007	-0.179	0.037	-0.048	-0.195
13	0.021	0.027	-0.054	0.019	-0.011	0.051	0.011	0.015	0.038	-0.057	0.022	0.046
14	0.009	-0.046	0.181	-0.041	-0.087	0.388	[illegible]	-0.129	0.129	-0.052	-0.076	-0.035
15	0.014	-0.036	-0.085	-0.019	0.016	-0.170	0.868	0.031	-0.043	-0.232	-0.114	0.031
16	0.024	-0.053	-0.200	-0.052	0.006	-0.010	0.078	-0.081	0.047	-0.013	0.059	-0.033
17	0.003	-0.948	0.121	-0.096	-0.060	0.035	0.021	0.072	-0.187	-0.013	0.155	-0.064
18	-0.059	-0.085	0.290	0.121	0.010	0.046	-0.008	0.096	-0.064	0.120	0.017	0.085
19	-0.014	0.040	-0.007	-0.002	0.944	-0.000	0.023	0.017	0.029	0.019	-0.023	-0.012
20	0.840	0.185	0.012	0.161	-0.008	-0.195	0.120	0.043	0.003	0.153	-0.143	-0.162
21	0.054	0.152	-0.086	0.201	0.024	-0.113	0.030	-0.869	0.075	-0.002	0.082	-0.037

L (1) (continued)

22	-0.152	-0.039	0.150	0.047	-0.006	0.013	0.097	0.020	0.044	0.029	-0.030	0.880
23	-0.084	-0.100	0.064	0.370	-0.003	-0.143	0.131	0.117	-0.751	0.137	0.080	0.018
24	0.082	-0.098	0.097	-0.051	-0.022	0.074	0.026	-0.025	-0.191	0.031	0.143	0.055
25	0.030	0.038	-0.167	0.073	0.176	-0.082	0.088	-0.086	0.105	0.250	-0.068	0.045
26	-0.176	0.077	0.055	0.218	-0.094	0.748	-0.102	-0.004	-0.044	0.026	-0.095	-0.009
27	0.164	-0.288	0.053	-0.007	0.031	-0.154	-0.056	0.091	-0.104	0.343	0.736	-0.067
28	-0.042	0.076	-0.134	0.345	0.027	-0.099	-0.117	0.035	0.676	-0.155	-0.131	0.125

L (2)

MATRIX OF COEFFICIENTS OF CONGRUENCE

B MATRIX

Subsample B

Total Sample	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	0.378	0.201	-0.193	-0.101	0.109	-0.088	0.002	0.077	0.041	-0.031	0.085	-0.027	0.365	-0.025	-0.161	0.036
2	-0.953	-0.071	-0.161	0.145	-0.046	0.131	0.039	-0.148	-0.154	0.062	-0.183	0.156	-0.163	-0.036	0.138	0.109
3	0.022	0.464	-0.206	-0.126	0.015	-0.243	-0.102	0.059	-0.019	-0.026	0.208	-0.071	-0.005	-0.082	-0.071	-0.005
4	0.033	0.021	0.023	-0.028	0.989	0.012	-0.025	-0.131	0.017	0.053	-0.032	-0.080	0.187	-0.003	0.010	0.007
5	-0.137	-0.129	0.115	0.983	-0.018	0.078	0.036	-0.044	-0.074	0.150	-0.243	-0.046	-0.053	0.039	0.135	0.052
6	0.236	0.005	0.018	-0.052	0.014	-0.004	-0.033	-0.010	0.971	-0.017	-0.134	0.053	0.071	-0.023	0.006	0.185
7	-0.194	-0.342	0.242	0.083	-0.004	0.971	0.012	0.152	-0.017	-0.035	-0.086	-0.003	-0.075	0.045	0.169	-0.205
8	0.008	0.094	-0.028	-0.046	0.028	-0.047	-0.958	-0.022	0.028	0.018	0.008	-0.082	-0.056	-0.104	0.061	-0.033
9	0.131	0.016	-0.121	-0.053	-0.126	0.169	0.035	0.963	-0.005	-0.140	0.108	0.064	0.026	-0.007	-0.036	-0.081
10	-0.062	-0.004	-0.081	0.153	0.087	-0.076	-0.025	-0.169	-0.018	0.971	-0.041	-0.029	-0.016	-0.028	0.174	0.191
11	-0.012	-0.138	0.114	0.082	0.010	0.091	0.086	0.060	0.043	0.059	-0.806	-0.023	0.015	0.005	0.295	0.127
12	0.033	0.009	-0.007	-0.103	-0.061	0.036	-0.174	0.152	0.076	-0.129	0.060	0.843	-0.066	-0.026	-0.004	-0.081
13	0.049	-0.071	0.034	0.025	0.011	0.052	0.111	0.011	-0.026	-0.034	0.007	-0.001	0.062	0.979	-0.021	-0.009
14	0.063	-0.004	0.217	-0.022	0.018	0.022	-0.027	0.100	0.084	-0.063	0.114	-0.180	0.679	-0.013	0.001	-0.176
15	-0.018	0.189	-0.040	-0.075	0.004	-0.089	0.020	0.251	0.006	0.016	0.107	0.113	-0.101	0.007	0.018	0.138
16	-0.068	-0.002	-0.161	0.042	0.011	-0.218	0.013	-0.103	0.176	0.179	-0.133	0.024	-0.004	-0.008	-0.002	0.985
17	-0.124	-0.098	0.025	0.138	-0.001	0.197	-0.086	-0.031	-0.018	0.123	-0.353	0.057	-0.085	-0.022	0.954	0.019
18	0.026	-0.030	0.069	0.020	-0.011	0.036	-0.162	0.143	0.011	-0.026	-0.056	0.123	-0.020	-0.016	0.038	-0.096
19	-0.013	0.008	-0.018	-0.041	0.004	-0.004	-0.026	0.038	0.074	-0.009	0.058	-0.014	0.053	-0.007	-0.042	-0.016
20	-0.076	-0.227	-0.106	-0.164	0.002	0.013	-0.040	0.076	-0.014	0.008	0.076	0.349	-0.008	-0.008	-0.047	0.079
21	0.010	0.032	-0.118	0.013	0.061	0.056	0.099	-0.166	0.116	0.077	0.150	0.073	0.221	-0.005	-0.037	0.098
22	0.132	-0.083	-0.021	0.251	0.020	0.131	0.153	-0.075	-0.041	-0.001	-0.046	-0.241	0.007	0.049	0.020	0.009
23	-0.095	-0.100	-0.005	0.024	-0.070	0.254	-0.098	0.103	-0.020	-0.030	-0.089	0.030	-0.160	0.007	0.111	-0.114
24	-0.076	0.018	0.096	-0.003	-0.080	0.107	-0.077	0.002	-0.049	-0.076	0.099	-0.108	-0.220	-0.055	0.114	-0.148
25	-0.024	0.115	-0.103	-0.038	0.197	0.036	-0.038	-0.078	0.106	0.066	0.035	0.011	0.478	-0.040	-0.111	0.082
26	0.286	-0.024	0.191	0.087	-0.013	0.150	0.121	0.177	-0.048	0.033	-0.015	0.051	0.332	0.074	-0.079	0.004
27	-0.112	-0.131	0.037	0.214	0.012	0.037	-0.080	-0.114	0.122	0.044	-0.681	0.116	0.012	-0.003	0.162	0.084
28	0.155	0.166	-0.043	-0.029	0.117	-0.095	-0.003	-0.113	-0.004	0.020	-0.050	-0.505	0.338	-0.031	-0.133	-0.015

Subsample B

Total Sample	17	18	19	20	21	22	23	24	25	26	27	28
1	-0.068	-0.456	0.036	0.111	0.062	0.001	-0.325	-0.049	0.071	0.661	-0.968	-0.313
2	-0.060	0.040	-0.107	0.020	0.042	-0.086	-0.091	0.013	-0.098	0.152	0.295	0.143
3	-0.021	-0.058	0.173	0.022	0.073	-0.018	-0.132	0.060	0.087	0.066	-0.135	0.088
4	-0.005	-0.077	0.019	0.009	0.057	0.108	-0.092	-0.026	-0.021	0.387	-0.070	-0.077
5	-0.000	0.035	0.132	-0.045	-0.037	-0.054	0.006	-0.301	-0.047	0.024	0.088	0.089
6	0.003	-0.041	0.022	0.062	0.086	-0.023	-0.083	-0.022	0.016	0.056	-0.052	-0.101
7	0.012	0.345	0.011	-0.020	0.016	-0.181	-0.262	-0.063	-0.065	-0.169	0.175	0.101
8	0.012	0.130	-0.042	-0.019	0.041	0.023	-0.042	0.139	0.043	-0.086	0.013	0.088
9	0.108	0.076	-0.112	0.032	-0.015	-0.041	-0.010	0.131	0.162	-0.168	-0.122	-0.049
10	-0.026	-0.065	0.032	0.011	0.074	0.098	-0.076	-0.032	-0.141	0.140	0.055	-0.026
11	-0.073	0.032	0.020	-0.022	-0.583	0.094	0.075	-0.020	-0.039	-0.040	0.070	0.078
12	0.208	-0.027	-0.210	-0.028	0.134	-0.033	0.006	0.775	0.248	0.005	0.017	-0.069
13	-0.033	-0.013	0.058	-0.000	-0.097	0.037	0.047	-0.081	-0.025	0.015	0.032	-0.065
14	0.121	0.017	0.088	-0.016	-0.097	-0.008	0.242	0.049	0.140	-0.734	-0.004	0.321
15	0.001	0.034	-0.088	0.094	0.158	0.115	-0.112	-0.021	-0.105	0.014	-0.077	-0.147
16	-0.061	-0.112	-0.087	-0.025	0.005	0.135	-0.042	0.005	-0.201	0.232	-0.017	-0.112
17	-0.003	0.137	0.037	-0.051	0.028	-0.179	0.051	-0.089	0.002	-0.050	0.209	0.372
18	0.903	0.093	-0.032	-0.015	-0.028	-0.082	0.096	-0.044	0.045	-0.182	0.075	0.138
19	0.015	-0.043	-0.046	0.948	0.055	0.019	-0.086	0.012	-0.049	0.081	-0.041	-0.063
20	-0.072	-0.100	-0.943	0.057	-0.011	0.018	-0.047	0.316	-0.069	0.115	0.053	-0.204
21	-0.136	-0.155	0.046	0.027	-0.158	-0.277	-0.137	0.012	-0.106	0.320	-0.189	-0.712

L (2) (continued)

22	0.005	0.019	0.153	-0.006	-0.136	-0.151	0.024	-0.447	-0.138	-0.007	-0.072	0.060
23	0.028	0.969	0.043	-0.061	-0.097	-0.125	-0.016	-0.036	-0.005	-0.149	0.314	0.249
24	0.178	0.153	0.136	-0.039	0.034	-0.869	-0.091	-0.140	-0.126	-0.270	0.097	0.242
25	-0.032	-0.145	-0.058	0.118	0.119	0.091	-0.862	-0.018	-0.067	0.229	-0.275	-0.235
26	-0.178	-0.065	0.135	0.042	-0.360	-0.057	0.297	0.115	-0.218	0.083	-0.043	0.304
27	0.086	0.012	0.021	-0.040	0.437	-0.090	-0.014	-0.054	-0.104	0.164	-0.025	0.090
28	0.081	-0.304	0.035	-0.027	-0.039	-0.000	0.023	-0.147	0.473	0.206	-0.197	-0.226

L (3)

MATRIX OF COEFFICIENTS OF CONGRUENCE

OR HI ORDER

Subsample B

Subsample A	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	-0.246	-0.162	0.143	0.077	-0.186	0.025	0.002	-0.007	-0.083	-0.021	-0.069	0.048	-0.648	0.036	0.151	-0.050
2	-0.079	0.018	-0.168	0.040	0.025	-0.224	0.019	-0.160	0.187	0.168	-0.149	0.032	-0.031	-0.014	-0.029	0.939
3	0.020	0.087	-0.060	-0.082	0.030	-0.036	-0.901	-0.000	0.013	0.004	0.035	-0.063	-0.037	-0.114	0.059	-0.042
4	0.222	0.374	-0.264	-0.078	0.018	-0.927	-0.007	-0.149	0.004	0.027	0.099	-0.052	0.142	-0.043	-0.179	0.166
5	0.035	0.013	0.026	-0.021	0.950	0.025	-0.018	-0.109	0.017	0.042	-0.031	-0.106	0.189	0.026	-0.005	0.008
6	-0.024	0.954	-0.735	-0.124	0.020	-0.264	-0.103	0.027	0.008	-0.035	0.179	-0.064	-0.023	-0.078	-0.061	0.019
7	0.219	0.047	0.012	-0.046	0.017	0.001	-0.027	-0.032	0.910	-0.000	-0.167	-0.000	0.079	-0.025	0.045	0.218
8	0.120	0.166	-0.068	-0.942	0.004	-0.066	-0.044	0.076	0.077	-0.139	0.241	0.074	0.053	-0.039	-0.158	-0.082
9	-0.091	-0.068	-0.075	0.158	0.098	-0.104	-0.028	-0.178	-0.020	0.907	-0.032	-0.032	0.005	-0.032	0.128	0.173
10	0.157	0.037	-0.118	-0.071	-0.106	0.135	0.052	0.835	0.024	-0.091	0.073	0.033	0.080	0.025	0.039	0.010
11	-0.140	-0.025	-0.021	0.109	0.062	-0.046	0.174	-0.203	-0.058	0.119	-0.075	-0.729	0.031	0.040	-0.005	0.111
12	0.086	0.155	-0.119	-0.159	0.001	-0.132	-0.111	-0.075	0.012	-0.050	0.761	-0.022	0.020	-0.022	-0.348	-0.148
13	0.023	-0.054	0.040	0.006	0.057	0.051	0.122	0.011	-0.031	-0.045	0.028	-0.029	0.062	0.895	-0.009	-0.025
14	-0.060	-0.119	0.279	0.038	-0.052	0.143	-0.080	0.050	-0.037	-0.076	-0.027	-0.273	0.246	-0.010	0.052	-0.195
15	0.910	0.046	0.115	-0.133	0.039	-0.147	-0.032	0.126	0.145	-0.047	0.154	-0.176	0.138	0.013	-0.150	-0.110
16	0.071	-0.100	-0.051	0.057	0.021	-0.045	0.132	0.070	0.057	0.065	-0.125	0.179	0.092	0.076	-0.083	0.138
17	-0.122	-0.203	-0.013	-0.125	0.014	0.009	-0.069	-0.119	-0.008	-0.012	0.007	0.247	0.005	0.021	-0.005	0.024
18	0.114	0.063	0.010	-0.102	-0.009	-0.149	0.111	0.086	-0.025	-0.081	0.340	-0.019	0.059	0.018	-0.848	-0.056
19	0.032	-0.026	0.166	0.022	-0.015	0.082	-0.203	0.169	0.018	-0.036	-0.046	0.127	-0.006	-0.032	0.089	-0.154
20	-0.066	-0.051	-0.020	0.058	0.045	0.129	0.093	0.177	-0.107	-0.020	-0.004	-0.110	0.160	0.018	-0.098	-0.041
21	0.049	0.003	0.008	-0.053	0.007	-0.005	-0.048	0.030	0.075	-0.033	0.048	-0.045	0.013	-0.004	-0.050	-0.009
22	0.253	0.072	0.299	0.040	0.018	0.099	0.091	-0.131	0.037	0.001	0.024	0.027	0.288	0.049	-0.012	-0.007
23	-0.009	0.120	-0.755	-0.040	0.011	-0.021	-0.003	0.325	0.064	0.021	0.093	0.122	-0.112	0.002	0.046	0.084
24	-0.013	-0.030	0.003	0.011	-0.040	-0.108	-0.087	0.131	-0.134	-0.062	-0.145	-0.017	-0.252	0.041	-0.001	-0.062
25	0.083	0.079	0.058	-0.015	0.114	-0.147	0.088	-0.058	0.024	0.028	0.075	-0.384	0.263	0.008	-0.161	0.030
26	-0.009	-0.062	0.226	0.079	0.010	0.034	-0.093	0.083	-0.021	-0.023	-0.039	0.069	-0.005	-0.014	-0.068	-0.021
27	-0.129	-0.141	0.087	0.119	-0.134	0.009	-0.022	-0.191	0.160	-0.007	-0.532	0.058	-0.048	0.012	0.139	0.051
28	0.131	-0.063	-0.051	0.199	0.032	0.169	0.206	-0.054	-0.058	-0.014	0.016	-0.203	0.012	0.036	-0.073	-0.012

Subsample B

Subsample A	17	18	19	20	21	22	23	24	25	26	27	28
1	0.026	0.428	0.007	-0.128	-0.085	-0.070	0.439	0.021	-0.016	-0.132	0.797	0.275
2	-0.075	-0.112	-0.192	-0.023	0.005	0.144	-0.106	0.035	-0.194	0.231	0.012	-0.148
3	0.010	0.159	-0.083	-0.011	0.058	0.019	-0.050	0.201	0.052	-0.059	0.025	0.045
4	-0.004	-0.438	0.017	0.009	-0.017	0.195	0.292	0.045	0.092	0.084	-0.209	-0.077
5	0.033	-0.044	0.052	-0.003	0.057	0.116	-0.063	-0.032	0.023	0.040	-0.036	-0.073
6	-0.004	-0.006	0.162	0.024	0.097	-0.018	-0.173	0.053	0.025	0.104	-0.089	0.066
7	0.026	-0.026	0.062	0.045	0.069	-0.059	-0.139	-0.062	0.046	0.108	-0.041	-0.111
8	-0.013	-0.065	-0.155	0.036	-0.022	0.066	-0.034	0.355	0.033	-0.017	-0.062	-0.077
9	0.023	-0.045	0.044	0.012	0.084	0.137	-0.153	-0.033	-0.151	0.123	0.099	-0.067
10	0.040	-0.070	-0.076	0.039	-0.007	-0.031	0.102	0.115	0.122	-0.274	-0.157	0.007
11	-0.211	-0.008	0.232	0.030	-0.068	0.044	0.003	-0.315	-0.206	0.041	-0.040	0.017
12	0.007	-0.086	0.059	0.023	0.444	-0.068	-0.024	0.069	-0.020	0.016	-0.086	-0.057
13	-0.075	-0.034	0.036	0.008	-0.167	0.057	0.055	-0.082	-0.029	-0.016	0.010	-0.084
14	0.152	0.534	0.137	-0.087	-0.093	0.033	0.163	-0.049	0.154	-0.676	0.381	0.475
15	0.052	-0.031	0.103	0.016	-0.034	0.083	0.117	-0.012	0.134	-0.054	-0.386	-0.184
16	-0.218	-0.068	-0.169	0.024	-0.050	0.755	0.112	0.160	0.034	0.268	-0.019	-0.149
17	-0.064	-0.103	-0.725	0.002	0.135	-0.110	-0.026	0.215	-0.024	-0.015	0.161	-0.106
18	-0.043	-0.114	-0.135	0.052	-0.111	0.116	-0.019	0.115	-0.017	0.072	-0.188	-0.356
19	0.656	0.051	-0.041	0.002	-0.071	-0.089	0.155	-0.092	0.032	-0.233	-0.002	0.174
20	0.033	0.278	-0.100	-0.023	-0.184	-0.085	-0.007	-0.003	0.100	0.173	-0.024	-0.188
21	0.043	-0.062	-0.068	0.824	0.098	0.026	-0.174	-0.020	-0.034	0.075	-0.027	-0.124

L (3) (continued)

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22 -0.055 -0.151  0.232  0.043 -0.214 -0.034  0.266  0.056 -0.139 -0.278  0.129  0.331
23  0.016  0.143 -0.141  0.034  0.104  0.044 -0.122 -0.105 -0.129 -0.039 -0.005 -0.117
24  0.120  0.093 -0.138  0.000  0.192  0.216  0.024 -0.046  0.103 -0.026  0.060  0.486
25  0.043 -0.715 -0.044  0.002  0.004  0.161  0.040 -0.088  0.202  0.075 -0.174 -0.243
26  0.083  0.143 -0.136 -0.010  0.227 -0.022 -0.169  0.002 -0.074  0.069  0.180  0.046
27  0.035  0.052  0.170 -0.048  0.156 -0.149  0.032 -0.006 -0.150  0.067  0.001  0.067
28  0.073  0.018  0.119  0.023 -0.125 -0.059 -0.046 -0.769 -0.093  0.018 -0.033  0.043
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ERGOMETRIC RESEARCH AND DEVELOPMENT SERIES

Report No. 1. Cunningham, J. W., Editor. **The Job-Cluster Concept and Its Curricular Implications: A Symposium.** Center Monograph No. 4, 1969.

Report No. 2. Cunningham, J. W. **"Ergometrics": A Systematic Approach to Some Educational Problems.** Center Monograph No. 7, 1971.

Report No. 3. Cunningham, J. W., Thomas C. Tuttle, John R. Floyd, and Joe A. Bates. **The Development of the Occupation Analysis Inventory: An "Ergometric" Approach to an Educational Problem.** Center Research Monograph No. 6, 1971.

Report No. 4. Neeb, Robert W., J. W. Cunningham, and John J. Pass. **Human Attribute Requirements of Work Elements: Further Development of the Occupation Analysis Inventory.** Center Research Monograph No. 7, 1971.

Report No. 5. Riccobono, John A. and J. W. Cunningham. **Work Dimensions Derived Through Systematic Job Analysis: A Study of the Occupation Analysis Inventory.** Center Research Monograph No. 8, 1971.

Report No. 6. Riccobono, John A. and J. W. Cunningham. **Work Dimensions Derived Through Systematic Job Analysis: A Replicated Study of the Occupation Analysis Inventory.** Center Research Monograph No. 9, 1971.

Report No. 7. Tuttle, Thomas C. and J. W. Cunningham. **Affective Correlates of Systematically Derived Work Dimensions: Validation of the Occupation Analysis Inventory.** Center Research Monograph No. 10, 1972.

Report No. 8. Bates, Joe A. and J. W. Cunningham. **Cognitive Correlates of Systematically Derived Work Dimensions: Validation of the Occupation Analysis Inventory,** in press.

Report No. 9. Cunningham, J. W. **Development and Validation of the Occupation Analysis Inventory: An "Ergometric" Approach to an Educational Problem.** Occasional Paper No. 15, 1972.

Report No. 10. Riccobono, John A., J. W. Cunningham, and R. R. Boese. **Clusters of Occupations Based on Systematically Derived Work Dimensions: An Exploratory Study,** 1974.

Report No. 11. Pass, J. J. and J. W. Cunningham. **A Systematic Procedure for Estimating the Human Attribute Requirements of Occupations,** 1975.

Report No. 12. Augustin, J. W., J. W. Cunningham, and W. D. Heath III. **Affective Correlates of Systematically Derived Occupational Variables: A Repeated Study,** 1975.

Report No. 13. Heath, W. D. III, J. W. Cunningham, and J. W. Augustin. **Ability Correlates of Systematically Derived Occupational Variables: A Repeated Study,** 1975.

Report No. 14. Boese, R. R. and J. W. Cunningham. **Systematically Derived Dimensions of Human Work,** 1975.

Report No. 15. Cunningham, J. W., D. F. Slonaker, and N. B. Riegel. **The Development of Interest Scales Based on Systematically Derived Work Dimensions: A Pilot Study,** 1975.

Report No. 16. Pass, J. J. and J. W. Cunningham. **Occupational Clusters Based on Systematically Derived Work Dimensions: Final Report,** 1975.

Report No. 17. Boese R. R. and J. W. Cunningham. **Relationships Between the Occupation Analysis Inventory, the Ohio Vocational Interest Survey, and the USES Worker Trait Groups: An Exploratory Study,** in press.

Report No. 18. Parry-Hill, J. W., Jr. and J. W. Cunningham. **The Initial Development and Validation of a Short Form Occupation Analysis Inventory Based on Systematically Derived Work Dimensions,** in press.